Range-Consistent Forbidden Regions of Allen's Relations

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Abstract: For all 8192 combinations of Allen's 13 relations between one task with origin o_i and fixed length ℓ_i and another task with origin o_j and fixed length ℓ_j , we give a formula $F(o_j, \overline{o_j}, \ell_i, \ell_j)$, where $\overline{o_j}$ and $\overline{o_j}$ respectively denote the earliest and the latest origin of task j , evaluating to a set of integers which are infeasible for o_i for the given combination. Such forbidden regions are useful e.g. in a range-consistency maintaining propagator for an Allen constraint in finite domain constraint programming.

Keywords: global constraint, Allen relation.

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1 All Combinations

1.1 Relation: []

Complement relation.

$$]-\infty, +\infty[$$

1.2 Relation: [b]

Complement relation.

$$[\overline{o_j} - \ell_i, +\infty[$$

1.3 Relation: [b,bi]

Complement relation.

$$[\overline{o_j} - \ell_i, \underline{o_j} + \ell_j]$$

1.4 Relation: [b,bi,d]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \end{cases}$$

1.5 Relation: [b,bi,d,di]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.6 Relation: [b,bi,d,di,e]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \end{cases}$$

1.7 Relation: [b,bi,d,di,e,f]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.8 Relation: [b,bi,d,di,e,f,fi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.9 Relation: [b,bi,d,di,e,f,fi,m]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.10 Relation: [b,bi,d,di,e,f,fi,m,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.11 Relation: [b,bi,d,di,e,f,fi,m,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.12 Relation: [b,bi,d,di,e,f,fi,m,mi,o,oi]

Complement relation.

$$\begin{cases} \emptyset & \text{if } \ell_i = \ell_j \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \neq \ell_j \end{cases}$$

1.13 Relation: [b,bi,d,di,e,f,fi,m,mi,o,oi,s]

Complement relation.

$$\begin{cases} \emptyset & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.14 Relation: [b,bi,d,di,e,f,fi,m,mi,o,oi,s,si]

Complement relation.

$$\emptyset$$

1.15 Relation: [b,bi,d,di,e,f,fi,m,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i < \ell_j \\ \emptyset & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.16 Relation: [b,bi,d,di,e,f,fi,m,mi,o,s]

Complement relation.

$$\begin{cases} \emptyset & \text{if } \ell_i = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.17 Relation: [b,bi,d,di,e,f,fi,m,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \emptyset & \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.18 Relation: [b,bi,d,di,e,f,fi,m,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ \emptyset & \text{if } \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.19 Relation: [b,bi,d,di,e,f,fi,m,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.20 Relation: [b,bi,d,di,e,f,fi,m,mi,oi,s]

Complement relation.

$$\begin{cases} \emptyset & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.21 Relation: [b,bi,d,di,e,f,fi,m,mi,oi,s,si]

Complement relation.

$$\begin{cases} \emptyset & \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.22 Relation: [b,bi,d,di,e,f,fi,m,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i < \ell_j \\ \emptyset & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.23 Relation: [b,bi,d,di,e,f,fi,m,mi,s]

Complement relation.

$$\begin{cases} \emptyset & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.24 Relation: [b,bi,d,di,e,f,fi,m,mi,s,si]

Complement relation.

$$\begin{cases} \emptyset & \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.25 Relation: [b,bi,d,di,e,f,fi,m,mi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ \emptyset & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.26 Relation: [b,bi,d,di,e,f,fi,m,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.27 Relation: [b,bi,d,di,e,f,fi,m,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \ell_j > 1 \end{cases}$$

1.28 Relation: [b,bi,d,di,e,f,fi,m,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.29 Relation: [b,bi,d,di,e,f,fi,m,o,oi,s,si]

Complement relation.

$$[\overline{o_j} + \ell_j, \underline{o_j} + \ell_j]$$

1.30 Relation: [b,bi,d,di,e,f,fi,m,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.31 Relation: [b,bi,d,di,e,f,fi,m,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.32 Relation: [b,bi,d,di,e,f,fi,m,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.33 Relation: [b,bi,d,di,e,f,fi,m,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.34 Relation: [b,bi,d,di,e,f,fi,m,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.35 Relation: [b,bi,d,di,e,f,fi,m,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.36 Relation: [b,bi,d,di,e,f,fi,m,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.37 Relation: [b,bi,d,di,e,f,fi,m,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.38 Relation: [b,bi,d,di,e,f,fi,m,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.39 Relation: [b,bi,d,di,e,f,fi,m,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.40 Relation: [b,bi,d,di,e,fi,m,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.41 Relation: [b,bi,d,di,e,fi,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.42 Relation: [b,bi,d,di,e,fi,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.43 Relation: [b,bi,d,di,e,fi,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \neq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.44 Relation: [b,bi,d,di,e,fi,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.45 Relation: [b,bi,d,di,e,fi,mi,o,oi,s,si]

Complement relation.

$$[\overline{o_j} - \ell_i, \underline{o_j} - \ell_i]$$

1.46 Relation: [b,bi,d,di,e,f,fi,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.47 Relation: [b,bi,d,di,e,f,fi,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} - 1] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.48 Relation: [b,bi,d,di,e,f,fi,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.49 Relation: [b,bi,d,di,e,f,fi,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.50 Relation: [b,bi,d,di,e,f,fi,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.51 Relation: [b,bi,d,di,e,f,fi,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.52 Relation: [b,bi,d,di,e,f,fi,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.53 Relation: [b,bi,d,di,e,f,fi,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.54 Relation: [b,bi,d,di,e,f,fi,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} - 1] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.55 Relation: [b,bi,d,di,e,f,fi,mi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.56 Relation: [b,bi,d,di,e,f,fi,mi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.57 Relation: [b,bi,d,di,e,f,fi,o]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.58 Relation: [b,bi,d,di,e,f,fi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.59 Relation: [b,bi,d,di,e,f,fi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.60 Relation: [b,bi,d,di,e,f,fi,o,oi,s,si]

Complement relation.

$$[\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j]$$

1.61 Relation: [b,bi,d,di,e,f,fi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.62 Relation: [b,bi,d,di,e,f,fi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.63 Relation: [b,bi,d,di,e,f,fi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.64 Relation: [b,bi,d,di,e,f,fi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.65 Relation: [b,bi,d,di,e,f,fi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.66 Relation: [b,bi,d,di,e,f,fi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.67 Relation: [b,bi,d,di,e,f,fi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.68 Relation: [b,bi,d,di,e,f,fi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.69 Relation: [b,bi,d,di,e,f,fi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.70 Relation: [b,bi,d,di,e,f,fi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.71 Relation: [b,bi,d,di,e,f,fi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.72 Relation: [b,bi,d,di,e,f,m]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - 2\ell_i + 3, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.73 Relation: [b,bi,d,di,e,f,m,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.74 Relation: [b,bi,d,di,e,f,m,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + 2\ell_j - 2\ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.75 Relation: [b,bi,d,di,e,f,m,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i < \ell_j \\ \emptyset & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.76 Relation: [b,bi,d,di,e,f,m,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = \ell_j + 1 \\ \emptyset & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.77 Relation: [b,bi,d,di,e,f,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} \emptyset & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i > \ell_j \end{cases}$$

1.78 Relation: [b,bi,d,di,e,f,m,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i < \ell_j \\ \emptyset & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i > \ell_j \end{cases}$$

1.79 Relation: [b,bi,d,di,e,f,m,mi,o,s]

Complement relation.

$$\begin{cases} \emptyset & \text{if } \ell_i = 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.80 Relation: [b,bi,d,di,e,f,m,mi,o,s,si]

Complement relation.

$$\begin{cases} \emptyset & \text{if } \ell_i = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.81 Relation: [b,bi,d,di,e,f,m,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.82 Relation: [b,bi,d,di,e,f,m,mi,oi]

Complement relation.

$$\begin{cases} \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.83 Relation: [b,bi,d,di,e,f,m,mi,oi,s]

Complement relation.

$$\begin{cases} \emptyset & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.84 Relation: [b,bi,d,di,e,f,m,mi,oi,s,si]

Complement relation.

$$\begin{cases} \emptyset & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.85 Relation: [b,bi,d,di,e,f,m,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i < \ell_j \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.86 Relation: [b,bi,d,di,e,f,m,mi,s]

Complement relation.

$$\begin{cases} \emptyset & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.87 Relation: [b,bi,d,di,e,f,m,mi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.88 Relation: [b,bi,d,di,e,f,m,mi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.89 Relation: [b,bi,d,di,e,f,m,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + 2\ell_j - 2\ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.90 Relation: [b,bi,d,di,e,f,m,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.91 Relation: [b,bi,d,di,e,f,m,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - 2\ell_i + 3, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.92 Relation: [b,bi,d,di,e,f,m,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.93 Relation: [b,bi,d,di,e,f,m,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.94 Relation: [b,bi,d,di,e,f,m,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - 2\ell_i + 2, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.95 Relation: [b,bi,d,di,e,f,m,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.96 Relation: [b,bi,d,di,e,f,m,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.97 Relation: [b,bi,d,di,e,f,m,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 2\ell_i + 3, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.98 Relation: [b,bi,d,di,e,f,m,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - 2\ell_i + 2, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.99 Relation: [b,bi,d,di,e,f,m,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.100 Relation: [b,bi,d,di,e,f,m,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.101 Relation: [b,bi,d,di,e,f,m,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.102 Relation: [b,bi,d,di,e,f,m,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.103 Relation: [b,bi,d,di,e,f,m,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.104 Relation: [b,bi,d,di,e,f,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_j + \ell_i - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.105 Relation: [b,bi,d,di,e,f,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 2\ell_j - 2\ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.106 Relation: [b,bi,d,di,e,f,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.107 Relation: [b,bi,d,di,e,f,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_i - 2] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.108 Relation: [b,bi,d,di,e,f,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{cases}$$

1.109 Relation: [b,bi,d,di,e,f,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.110 Relation: [b,bi,d,di,e,f,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_i - 2] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.111 Relation: [b,bi,d,di,e,f,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{cases}$$

1.112 Relation: [b,bi,d,di,e,f,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.113 Relation: [b,bi,d,di,e,f,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.114 Relation: [b,bi,d,di,e,f,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.115 Relation: [b,bi,d,di,e,f,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.116 Relation: [b,bi,d,di,e,f,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i > \ell_j \end{cases}$$

1.117 Relation: [b,bi,d,di,e,f,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_i - 2] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

Complement relation.

Complement relation.

Complement relation.

Complement relation.

Complement relation.

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1.123 Relation: [b,bi,d,di,e,f,o,oi,s,si]

Complement relation.

$$\begin{cases} [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\underline{\sigma_j} + \ell_j, \underline{\sigma_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - 1] \cup [\underline{\sigma_j} + \ell_j, \underline{\sigma_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\underline{\sigma_j} + \ell_j - \ell_i, \underline{\sigma_j} + \ell_j - \ell_i] \cup [\underline{\sigma_j} + \ell_j, \underline{\sigma_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i + 1] \cup [\underline{\sigma_j} + 1, \underline{\sigma_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{cases}$$

1.124 Relation: [b,bi,d,di,e,f,o,oi,si]

Complement relation.

$$\begin{cases} [\underline{\sigma_j} - \underline{\ell_i}, \underline{\sigma_j} - \underline{\ell_i}] \cup [\underline{\sigma_j}, \underline{\sigma_j}] \cup [\underline{\sigma_j} + \underline{\ell_j}, \underline{\sigma_j} + \underline{\ell_j}] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\underline{\sigma_j} - \underline{\ell_i}, \underline{\sigma_j} - \underline{\ell_i}] \cup [\underline{\sigma_j} + \underline{\ell_j}, \underline{\sigma_j} + \underline{\ell_j}] & \text{if } \ell_i = \ell_j \\ [\underline{\sigma_j} - \underline{\ell_i}, \underline{\sigma_j} - \underline{\ell_i}] \cup [\underline{\sigma_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{\sigma_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\underline{\sigma_j} + \underline{\ell_j}, \underline{\sigma_j} + \underline{\ell_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\underline{\sigma_j} - \underline{\ell_i}, \underline{\sigma_j} - \underline{\ell_i} + 1] \cup [\underline{\sigma_j} + \underline{\ell_j}, \underline{\sigma_j} + \underline{\ell_j}] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.125 Relation: [b,bi,d,di,e,f,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, o_j + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, o_j - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, o_j + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, o_j - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, o_j + \ell_j - \ell_i] \cup [\overline{o_j}, o_j + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.126 Relation: [b,bi,d,di,e,f,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{cases}$$

1.127 Relation: [b,bi,d,di,e,f,o,si]

Complement relation.

$$\begin{cases} [\underline{o_j} - \ell_i, o_j - \ell_i] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.128 Relation: [b,bi,d,di,e,f,oi]

Complement relation.

$$\begin{cases} [\underline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\underline{o_j} - \ell_i, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j}] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\underline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.129 Relation: [b,bi,d,di,e,f,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.130 Relation: [b,bi,d,di,e,f,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.131 Relation: [b,bi,d,di,e,f,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.132 Relation: [b,bi,d,di,e,f,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.133 Relation: [b,bi,d,di,e,f,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.134 Relation: [b,bi,d,di,e,f,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.135 Relation: [b,bi,d,di,e,fi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.136 Relation: [b,bi,d,di,e,fi,m]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.137 Relation: [b,bi,d,di,e,fi,m,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.138 Relation: [b,bi,d,di,e,fi,m,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \end{cases}$$

1.139 Relation: [b,bi,d,di,e,fi,m,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\ \emptyset & \text{if } \ell_i = \ell_j \\ [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.140 Relation: [b,bi,d,di,e,fi,m,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ \emptyset & \text{if } \ell_i = \ell_j \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.141 Relation: [b,bi,d,di,e,fi,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ \emptyset & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.142 Relation: [b,bi,d,di,e,fi,m,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j - 1 \\ \emptyset & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.143 Relation: [b,bi,d,di,e,fi,m,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.144 Relation: [b,bi,d,di,e,fi,m,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\ \emptyset & \text{if } \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \end{cases}$$

1.145 Relation: [b,bi,d,di,e,fi,m,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \\ \emptyset & \text{if } \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.146 Relation: [b,bi,d,di,e,fi,m,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + 2\ell_j - 2\ell_i - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.147 Relation: [b,bi,d,di,e,fi,m,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.148 Relation: [b,bi,d,di,e,fi,m,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ \emptyset & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.149 Relation: [b,bi,d,di,e,fi,m,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j - 1 \\ \emptyset & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.150 Relation: [b,bi,d,di,e,fi,m,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.151 Relation: [b,bi,d,di,e,fi,m,mi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ \emptyset & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.152 Relation: [b,bi,d,di,e,fi,m,mi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \\ \emptyset & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.153 Relation: [b,bi,d,di,e,fi,m,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \end{cases}$$

1.154 Relation: [b,bi,d,di,e,fi,m,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.155 Relation: [b,bi,d,di,e,fi,m,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.156 Relation: [b,bi,d,di,e,fi,m,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.157 Relation: [b,bi,d,di,e,fi,m,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_j + 2, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.158 Relation: [b,bi,d,di,e,fi,m,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.159 Relation: [b,bi,d,di,e,fi,m,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \end{cases}$$

1.160 Relation: [b,bi,d,di,e,fi,m,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.161 Relation: [b,bi,d,di,e,fi,m,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + 2\ell_j - 2\ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.162 Relation: [b,bi,d,di,e,fi,m,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.163 Relation: [b,bi,d,di,e,fi,m,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.164 Relation: [b,bi,d,di,e,fi,m,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_j + 2, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.165 Relation: [b,bi,d,di,e,fi,m,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.166 Relation: [b,bi,d,di,e,fi,m,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.167 Relation: [b,bi,d,di,e,fi,m,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

Complement relation.

Complement relation.

Complement relation.

Complement relation.

Complement relation.

Complement relation.

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1.174 Relation: [b,bi,d,di,e,fi,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.175 Relation: [b,bi,d,di,e,fi,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \end{cases}$$

1.176 Relation: [b,bi,d,di,e,fi,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + 2\ell_j - \ell_i - 2] & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.177 Relation: [b,bi,d,di,e,fi,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + 2\ell_j - 2\ell_i - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.178 Relation: [b,bi,d,di,e,fi,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.179 Relation: [b,bi,d,di,e,fi,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.180 Relation: [b,bi,d,di,e,fi,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + 2\ell_j - 2\ell_i - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.181 Relation: [b,bi,d,di,e,fi,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.182 Relation: [b,bi,d,di,e,fi,mi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.183 Relation: [b,bi,d,di,e,fi,mi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.184 Relation: [b,bi,d,di,e,fi,o]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.191 Relation: [b,bi,d,di,e,fi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.192 Relation: [b,bi,d,di,e,fi,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - 1, \underline{o_j}] \cup [\underline{o_j} + \underline{\ell_j} - 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j}] \cup [\underline{o_j} + \underline{\ell_j} - \ell_i, \underline{o_j} + \underline{\ell_j} - \ell_i] \cup [\underline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i = \ell_j \\ [\underline{o_j} - 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + 1] \cup [\underline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + \underline{\ell_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.193 Relation: [b,bi,d,di,e,fi,oi,s]

Complement relation.

$$\begin{cases} [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\underline{o_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\underline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} < \underline{\ell_j} \wedge \underline{\ell_i} > 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\underline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} = \underline{\ell_j} \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i} - 1] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} > \underline{\ell_j} \wedge \underline{\ell_j} > 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j} + \underline{\ell_j} - 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} \neq \underline{\ell_j} \wedge \min(\underline{\ell_i}, \underline{\ell_j}) = 1 \end{cases}$$

1.194 **Relation:** [b,bi,d,di,e,fi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.195 **Relation:** [b,bi,d,di,e,fi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + 1] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.196 Relation: [b,bi,d,di,e,fi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.197 Relation: [b,bi,d,di,e,fi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.198 Relation: [b,bi,d,di,e,fi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.199 Relation: [b,bi,d,di,e,m]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_j + \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.200 Relation: [b,bi,d,di,e,m,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \end{cases}$$

1.201 Relation: [b,bi,d,di,e,m,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + 2\ell_j - 2\ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.202 Relation: [b,bi,d,di,e,m,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\ \emptyset & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.203 Relation: [b,bi,d,di,e,m,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ \emptyset & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.204 Relation: [b,bi,d,di,e,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} \emptyset & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \neq \ell_j \end{cases}$$

1.205 Relation: [b,bi,d,di,e,m,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\ \emptyset & \text{if } \ell_i = \ell_j \\ [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i > \ell_j \end{cases}$$

1.206 Relation: [b,bi,d,di,e,m,mi,o,s]

Complement relation.

$$\begin{cases} \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.207 Relation: [b,bi,d,di,e,m,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.208 Relation: [b,bi,d,di,e,m,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_j + \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.209 Relation: [b,bi,d,di,e,m,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_j + \ell_i - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.210 Relation: [b,bi,d,di,e,m,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_j + \ell_i - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.211 Relation: [b,bi,d,di,e,m,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.212 Relation: [b,bi,d,di,e,m,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \end{cases}$$

1.213 Relation: [b,bi,d,di,e,m,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.214 Relation: [b,bi,d,di,e,m,mi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.215 Relation: [b,bi,d,di,e,m,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.216 Relation: [b,bi,d,di,e,m,o]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} - \ell_j + \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.217 Relation: [b,bi,d,di,e,m,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.218 Relation: [b,bi,d,di,e,m,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.219 Relation: [b,bi,d,di,e,m,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.220 Relation: [b,bi,d,di,e,m,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.221 Relation: [b,bi,d,di,e,m,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.222 Relation: [b,bi,d,di,e,m,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.223 Relation: [b,bi,d,di,e,m,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_j + \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.229 Relation: [b,bi,d,di,e,m,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.230 Relation: [b,bi,d,di,e,m,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_j + 2, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.231 Relation: [b,bi,d,di,e,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_i - 2] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \end{cases}$$

1.232 Relation: [b,bi,d,di,e,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, o_j - \ell_i] \cup [\overline{o_j}, o_j] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, o_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, o_j - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, o_j - \ell_i] \cup [\overline{o_j} + 2\ell_j - 2\ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + 2\ell_j + \ell_i - 4] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, o_j - \ell_i + 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.233 Relation: [b,bi,d,di,e,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\underline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.234 Relation: [b,bi,d,di,e,mi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.235 Relation: [b,bi,d,di,e,mi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \neq \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.236 Relation: [b,bi,d,di,e,mi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.237 Relation: [b,bi,d,di,e,mi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_j + \ell_i - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.238 Relation: [b,bi,d,di,e,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.239 Relation: [b,bi,d,di,e,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} - \ell_j + \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.240 Relation: [b,bi,d,di,e,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_j + \ell_i - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.241 Relation: [b,bi,d,di,e,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_j + \ell_i - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.242 Relation: [b,bi,d,di,e,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.243 Relation: [b,bi,d,di,e,mi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \end{array} \right.$$

1.244 Relation: [b,bi,d,di,e,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_j + \ell_i - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

Complement relation.

Complement relation.

Complement relation.

Complement relation.

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1.249 Relation: [b,bi,d,di,e,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.250 Relation: [b,bi,d,di,e,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, o_j - 1] \cup [\overline{o_j} + \ell_j - 1, o_j + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, o_j - \ell_i] \cup [\overline{o_j} + \ell_j, o_j + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, o_j - \ell_i + 1] \cup [\overline{o_j} + 1, o_j + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, o_j - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, o_j + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, o_j + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.251 **Relation:** [b,bi,d,di,e,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, o_j] \cup [\overline{o_j} + \ell_j - 1, o_j + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, o_j - \ell_i] \cup [\overline{o_j}, o_j] \cup [\overline{o_j} + \ell_j - \ell_i, o_j + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, o_j + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, o_j - \ell_i] \cup [\overline{o_j} + \ell_j, o_j + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - 1, o_j + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, o_j - \ell_i] \cup [\overline{o_j}, o_j + 1] \cup [\overline{o_j} + \ell_j, o_j + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, o_j - \ell_i + 1] \cup [\overline{o_j} + 1, o_j + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, o_j - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, o_j + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, o_j + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.252 Relation: [b,bi,d,di,e,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.253 Relation: [b,bi,d,di,e,o,s,si]

Complement relation.

$$\begin{cases} [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\underline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.254 Relation: [b,bi,d,di,e,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{\sigma_j} - 1, \underline{o_j}] \cup [\underline{\sigma_j} + \underline{\ell_j} - 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{\sigma_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{\sigma_j}, \underline{o_j}] \cup [\underline{\sigma_j} + \underline{\ell_j} - \ell_i, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{\sigma_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{\sigma_j} + 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i = \ell_j \\ [\underline{\sigma_j} - 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{\sigma_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{\sigma_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{\sigma_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\underline{\sigma_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\underline{\sigma_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{\sigma_j} + \underline{\ell_j} - \ell_i, \underline{o_j} + \underline{\ell_j} - \ell_i] \cup [\underline{\sigma_j} + 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.255 **Relation:** [b,bi,d,di,e,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, o_j] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, o_j - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, o_j] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, o_j + 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, o_j + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, o_j + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, o_j - \ell_i + 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.256 Relation: [b,bi,d,di,e,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - \ell_i, o_j - 1] \cup [\underline{o_j} + \ell_j - \ell_i, o_j + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, o_j - 1] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{o_j} - \ell_i, o_j + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, o_j - 1] \cup [\underline{o_j} + 1, o_j + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{o_j} - \ell_i, o_j + \ell_j - \ell_i] \cup [\underline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, o_j + \ell_j - \ell_i] \cup [\underline{o_j}, o_j] \cup [\underline{o_j} + \ell_j, o_j + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, o_j - \ell_j + \ell_i - 1] \cup [\underline{o_j} + \ell_j, o_j + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.257 Relation: [b,bi,d,di,e,oi,s,si]

Complement relation.

$$\begin{cases} [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\underline{\overline{o_j}} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\underline{\overline{o_j}} - 1, \underline{o_j} - 1] \cup [\underline{\overline{o_j}} + \underline{\ell_j} - 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{\overline{o_j}} + \underline{\ell_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i > \ell_j + 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\underline{\overline{o_j}} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.258 Relation: [b,bi,d,di,e,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.259 Relation: [b,bi,d,di,e,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.260 Relation: [b,bi,d,di,e,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.261 Relation: [b,bi,d,di,e,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.262 Relation: [b,bi,d,di,f]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.263 Relation: [b,bi,d,di,f,fi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.264 Relation: [b,bi,d,di,f,fi,m]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.265 Relation: [b,bi,d,di,f,fi,m,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.266 Relation: [b,bi,d,di,f,fi,m,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.267 Relation: [b,bi,d,di,f,fi,m,mi,o,oi]

Complement relation.

$$[\overline{o_j}, \underline{o_j}]$$

1.268 Relation: [b,bi,d,di,f,fi,m,mi,o,oi,s]

Complement relation.

$$\begin{cases} \emptyset & \text{if } \ell_i < \ell_j \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.269 Relation: [b,bi,d,di,f,fi,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i = \ell_j \\ \emptyset & \text{if } \ell_i \neq \ell_j \end{cases}$$

1.270 Relation: [b,bi,d,di,f,fi,m,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \\ \emptyset & \text{if } \ell_i > \ell_j \end{cases}$$

1.271 Relation: [b,bi,d,di,f,fi,m,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.272 Relation: [b,bi,d,di,f,fi,m,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ \emptyset & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.273 Relation: [b,bi,d,di,f,fi,m,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i = 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.274 Relation: [b,bi,d,di,f,fi,m,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] & \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.275 Relation: [b,bi,d,di,f,fi,m,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.276 Relation: [b,bi,d,di,f,fi,m,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ \emptyset & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.277 Relation: [b,bi,d,di,f,fi,m,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \\ \emptyset & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.278 Relation: [b,bi,d,di,f,fi,m,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.279 Relation: [b,bi,d,di,f,fi,m,mi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ \emptyset & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.280 Relation: [b,bi,d,di,f,fi,m,mi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.281 Relation: [b,bi,d,di,f,fi,m,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.282 Relation: [b,bi,d,di,f,fi,m,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_j > 1 \end{cases}$$

1.283 Relation: [b,bi,d,di,f,fi,m,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.284 Relation: [b,bi,d,di,f,fi,m,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \end{cases}$$

1.285 Relation: [b,bi,d,di,f,fi,m,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.286 Relation: [b,bi,d,di,f,fi,m,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.287 Relation: [b,bi,d,di,f,fi,m,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.288 Relation: [b,bi,d,di,f,fi,m,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.289 Relation: [b,bi,d,di,f,fi,m,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.290 Relation: [b,bi,d,di,f,fi,m,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.291 Relation: [b,bi,d,di,f,fi,m,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.292 Relation: [b,bi,d,di,f,fi,m,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.293 Relation: [b,bi,d,di,f,fi,m,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.294 Relation: [b,bi,d,di,f,fi,m,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.295 Relation: [b,bi,d,di,f,fi,m,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.296 Relation: [b,bi,d,di,f,fi,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.297 Relation: [b,bi,d,di,f,fi,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.298 Relation: [b,bi,d,di,f,fi,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > 1 \end{cases}$$

1.299 Relation: [b,bi,d,di,f,fi,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.300 Relation: [b,bi,d,di,f,fi,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i \neq \ell_j \end{cases}$$

1.301 Relation: [b,bi,d,di,f,fi,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i > \ell_j \end{cases}$$

1.302 Relation: [b,bi,d,di,f,fi,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.303 Relation: [b,bi,d,di,f,fi,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.304 Relation: [b,bi,d,di,f,fi,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.305 Relation: [b,bi,d,di,f,fi,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.306 Relation: [b,bi,d,di,f,fi,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.307 Relation: [b,bi,d,di,f,fi,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.308 Relation: [b,bi,d,di,f,fi,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.309 Relation: [b,bi,d,di,f,fi,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.310 Relation: [b,bi,d,di,f,fi,mi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.311 Relation: [b,bi,d,di,f,fi,mi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.312 Relation: [b,bi,d,di,f,fi,o]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.313 Relation: [b,bi,d,di,f,fi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.314 Relation: [b,bi,d,di,f,fi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.315 Relation: [b,bi,d,di,f,fi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \end{cases}$$

1.316 Relation: [b,bi,d,di,f,fi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.317 Relation: [b,bi,d,di,f,fi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.318 Relation: [b,bi,d,di,f,fi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.319 Relation: [b,bi,d,di,f,fi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.320 Relation: [b,bi,d,di,f,fi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.321 Relation: [b,bi,d,di,f,fi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.322 Relation: [b,bi,d,di,f,fi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.323 Relation: [b,bi,d,di,f,fi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.324 Relation: [b,bi,d,di,f,fi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.325 Relation: [b,bi,d,di,f,fi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.326 Relation: [b,bi,d,di,f,fi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.327 Relation: [b,bi,d,di,f,m]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.328 Relation: [b,bi,d,di,f,m,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.329 Relation: [b,bi,d,di,f,m,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.330 Relation: [b,bi,d,di,f,m,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.331 Relation: [b,bi,d,di,f,m,mi,o,oi,s]

Complement relation.

$$\begin{cases} \emptyset & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.332 Relation: [b,bi,d,di,f,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} \emptyset & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.333 Relation: [b,bi,d,di,f,m,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i > \ell_j \end{cases}$$

1.334 Relation: [b,bi,d,di,f,m,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.335 Relation: [b,bi,d,di,f,m,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.336 Relation: [b,bi,d,di,f,m,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] & \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.337 Relation: [b,bi,d,di,f,m,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i \leq \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.338 Relation: [b,bi,d,di,f,m,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.339 Relation: [b,bi,d,di,f,m,mi,oi,s,si]

Complement relation.

$$\begin{cases} \emptyset & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \neq \ell_j + 1 \end{cases}$$

1.340 Relation: [b,bi,d,di,f,m,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i > \ell_j \end{cases}$$

1.341 Relation: [b,bi,d,di,f,m,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.342 Relation: [b,bi,d,di,f,m,mi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.343 Relation: [b,bi,d,di,f,m,mi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] & \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.344 Relation: [b,bi,d,di,f,m,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.345 Relation: [b,bi,d,di,f,m,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.346 Relation: [b,bi,d,di,f,m,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.347 Relation: [b,bi,d,di,f,m,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.348 Relation: [b,bi,d,di,f,m,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.349 Relation: [b,bi,d,di,f,m,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.350 Relation: [b,bi,d,di,f,m,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.351 Relation: [b,bi,d,di,f,m,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.352 Relation: [b,bi,d,di,f,m,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.353 Relation: [b,bi,d,di,f,m,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.354 Relation: [b,bi,d,di,f,m,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.355 Relation: [b,bi,d,di,f,m,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.356 Relation: [b,bi,d,di,f,m,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.357 Relation: [b,bi,d,di,f,m,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.358 Relation: [b,bi,d,di,f,m,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.359 Relation: [b,bi,d,di,f,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.360 Relation: [b,bi,d,di,f,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.361 Relation: [b,bi,d,di,f,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.362 Relation: [b,bi,d,di,f,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.363 Relation: [b,bi,d,di,f,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.364 Relation: [b,bi,d,di,f,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] & \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.365 Relation: [b,bi,d,di,f,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.366 Relation: [b,bi,d,di,f,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.367 Relation: [b,bi,d,di,f,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] & \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.368 Relation: [b,bi,d,di,f,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i \leq \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.369 Relation: [b,bi,d,di,f,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.370 Relation: [b,bi,d,di,f,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \neq \ell_j + 1 \end{cases}$$

1.371 Relation: [b,bi,d,di,f,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i > \ell_j \end{cases}$$

1.372 Relation: [b,bi,d,di,f,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.373 Relation: [b,bi,d,di,f,mi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{cases}$$

1.374 Relation: [b,bi,d,di,f,mi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] & \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.375 Relation: [b,bi,d,di,f,o]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.376 Relation: [b,bi,d,di,f,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j - 1}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j - \ell_i}, \underline{o_j - \ell_i}] \cup [\overline{o_j - 1}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j - \ell_i}, \underline{o_j - \ell_i}] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j - \ell_i}, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j - \ell_i}, \underline{o_j - \ell_i} + 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j - \ell_i}, \underline{o_j - \ell_i}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.377 Relation: [b,bi,d,di,f,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.378 Relation: [b,bi,d,di,f,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.379 Relation: [b,bi,d,di,f,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, o_j + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.380 Relation: [b,bi,d,di,f,o,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\underline{o_j} - \ell_i, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\underline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.381 Relation: [b,bi,d,di,f,o,s,si]

Complement relation.

$$\begin{cases} [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\underline{o_j} - 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\underline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.382 Relation: [b,bi,d,di,f,o,si]

Complement relation.

$$\begin{cases} [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{\overline{o_j}} - \underline{\ell_i}] \cup [\underline{\overline{o_j}}, \underline{\overline{o_j}}] \cup [\underline{\overline{o_j}} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{\overline{o_j}} + \underline{\ell_j}] & \text{if } \underline{\ell_i} < \underline{\ell_j} \wedge \underline{\ell_i} > 1 \\ [\underline{\overline{o_j}} - 1, \underline{\overline{o_j}} + 1] & \text{if } \underline{\ell_i} = 1 \wedge \underline{\ell_j} = 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{\overline{o_j}} - \underline{\ell_i}] \cup [\underline{\overline{o_j}}, \underline{\overline{o_j}} + \underline{\ell_j}] & \text{if } \underline{\ell_i} = \underline{\ell_j} \wedge \underline{\ell_i} > 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{\overline{o_j}} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + \underline{\ell_j} - \underline{\ell_i}, \underline{\overline{o_j}} + \underline{\ell_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + 1, \underline{\overline{o_j}} + \underline{\ell_j}] & \text{if } \underline{\ell_i} > \underline{\ell_j} \wedge \underline{\ell_j} > 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{\overline{o_j}} - \underline{\ell_i} + 1] \cup [\underline{\overline{o_j}} + \underline{\ell_j}, \underline{\overline{o_j}} + \underline{\ell_j}] & \text{if } \underline{\ell_i} \neq \underline{\ell_j} \wedge \min(\underline{\ell_i}, \underline{\ell_j}) = 1 \end{cases}$$

1.383 Relation: [b,bi,d,di,f,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.384 Relation: [b,bi,d,di,f,oi,s]

Complement relation.

$$\begin{cases} [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\underline{\overline{o_j}} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} < \underline{\ell_j} \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} + 1] & \text{if } \underline{\ell_i} \leq \underline{\ell_j} + 1 \wedge \underline{\ell_j} = 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i} + 1] \cup [\underline{\overline{o_j}}, \underline{o_j} + 1] & \text{if } \underline{\ell_i} > \underline{\ell_j} + 1 \wedge \underline{\ell_j} = 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}}, \underline{o_j}] \cup [\underline{\overline{o_j}} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} > \underline{\ell_j} + 1 \wedge \underline{\ell_j} > 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j}] \cup [\underline{\overline{o_j}} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} \geq \underline{\ell_j} \wedge \underline{\ell_i} \leq \underline{\ell_j} + 1 \wedge \underline{\ell_i} > 1 \wedge \underline{\ell_j} > 1 \end{cases}$$

1.385 Relation: [b,bi,d,di,f,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.386 Relation: [b,bi,d,di,f,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.387 Relation: [b,bi,d,di,f,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.388 Relation: [b,bi,d,di,f,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.389 Relation: [b,bi,d,di,f,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.390 Relation: [b,bi,d,di,fi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.391 Relation: [b,bi,d,di,fi,m]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.392 Relation: [b,bi,d,di,fi,m,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.393 Relation: [b,bi,d,di,fi,m,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \end{cases}$$

1.394 Relation: [b,bi,d,di,fi,m,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.395 Relation: [b,bi,d,di,fi,m,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.396 Relation: [b,bi,d,di,fi,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \\ \emptyset & \text{if } \ell_i > \ell_j \end{cases}$$

1.397 Relation: [b,bi,d,di,fi,m,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ \emptyset & \text{if } \ell_i > \ell_j \end{cases}$$

1.398 Relation: [b,bi,d,di,fi,m,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.399 Relation: [b,bi,d,di,fi,m,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \neq \ell_j - 1 \\ \emptyset & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \end{cases}$$

1.400 Relation: [b,bi,d,di,fi,m,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ \emptyset & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.401 Relation: [b,bi,d,di,fi,m,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.402 Relation: [b,bi,d,di,fi,m,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.403 Relation: [b,bi,d,di,fi,m,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.404 Relation: [b,bi,d,di,fi,m,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ \emptyset & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.405 Relation: [b,bi,d,di,fi,m,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.406 Relation: [b,bi,d,di,fi,m,mi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.407 Relation: [b,bi,d,di,fi,m,mi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ \emptyset & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.408 Relation: [b,bi,d,di,fi,m,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \end{cases}$$

1.409 Relation: [b,bi,d,di,fi,m,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.410 Relation: [b,bi,d,di,fi,m,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.411 Relation: [b,bi,d,di,fi,m,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.412 Relation: [b,bi,d,di,fi,m,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.413 Relation: [b,bi,d,di,fi,m,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.414 Relation: [b,bi,d,di,fi,m,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \neq \ell_j - 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \end{cases}$$

1.415 Relation: [b,bi,d,di,fi,m,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.416 Relation: [b,bi,d,di,fi,m,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

Complement relation.

Complement relation.

Complement relation.

Complement relation.

Complement relation.

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1.422 Relation: [b,bi,d,di,fi,m,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.423 Relation: [b,bi,d,di,fi,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.424 Relation: [b,bi,d,di,fi,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \end{cases}$$

1.425 Relation: [b,bi,d,di,fi,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.426 Relation: [b,bi,d,di,fi,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.427 Relation: [b,bi,d,di,fi,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i > \ell_j \end{cases}$$

1.428 Relation: [b,bi,d,di,fi,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i > \ell_j \end{cases}$$

1.429 Relation: [b,bi,d,di,fi,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.430 Relation: [b,bi,d,di,fi,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \neq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \end{cases}$$

1.431 Relation: [b,bi,d,di,fi,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.432 Relation: [b,bi,d,di,fi,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.433 Relation: [b,bi,d,di,fi,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.434 Relation: [b,bi,d,di,fi,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.435 Relation: [b,bi,d,di,fi,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.436 Relation: [b,bi,d,di,fi,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.437 Relation: [b,bi,d,di,fi,mi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.438 Relation: [b,bi,d,di,fi,mi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.439 Relation: [b,bi,d,di,fi,o]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \end{cases}$$

1.440 Relation: [b,bi,d,di,fi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.441 Relation: [b,bi,d,di,fi,o,oi,s]

Complement relation.

$$\begin{cases} [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.442 **Relation:** [b,bi,d,di,fi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\underline{o_j} - 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\underline{o_j} - 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.443 **Relation:** [b,bi,d,di,fi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.444 Relation: [b,bi,d,di,fi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.445 **Relation:** [b,bi,d,di,fi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \neq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \end{cases}$$

1.446 Relation: [b,bi,d,di,fi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{\sigma_j} - 1, \underline{o_j}] \cup [\underline{\sigma_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{\sigma_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{\sigma_j}, \underline{o_j}] \cup [\underline{\sigma_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{\sigma_j} - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{\sigma_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{\sigma_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{\sigma_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{\sigma_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.447 **Relation:** [b,bi,d,di,fi,oi]

Complement relation.

$$\begin{cases} [\underline{\overline{o_j}} - 1, \underline{o_j}] \cup [\underline{\overline{o_j}} + \underline{\ell_j} - 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{\overline{o_j}} - \ell_i, \underline{o_j}] \cup [\underline{\overline{o_j}} + \underline{\ell_j} - \ell_i, \underline{o_j} + \underline{\ell_j} - \ell_i] \cup [\underline{\overline{o_j}} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{\overline{o_j}} - 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{\overline{o_j}} - \ell_i, \underline{o_j} + \underline{\ell_j} - \ell_i] \cup [\underline{\overline{o_j}} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{\overline{o_j}} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{\overline{o_j}}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\underline{\overline{o_j}} - \ell_i, \underline{o_j} + \underline{\ell_j} - \ell_i - 1] \cup [\underline{\overline{o_j}}, \underline{o_j}] \cup [\underline{\overline{o_j}} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.448 **Relation:** [b,bi,d,di,fi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\overline{o_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \underline{\ell_i}, \underline{o_j}] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i} - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j} - 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.449 **Relation:** [b,bi,d,di,fi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\underline{o_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\underline{\overline{o_j}} - 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\underline{\overline{o_j}} - 1, \underline{o_j} - 1] \cup [\underline{\overline{o_j}} + \underline{\ell_j} - 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j}] \cup [\underline{\overline{o_j}} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i} - 1] \cup [\underline{\overline{o_j}} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.450 Relation: [b,bi,d,di,fi,oi,si]

Complement relation.

$$\begin{cases} [\underline{o_j} - 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.451 Relation: [b,bi,d,di,fi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.452 Relation: [b,bi,d,di,fi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.453 Relation: [b,bi,d,di,fi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.454 Relation: [b,bi,d,di,m]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.455 Relation: [b,bi,d,di,m,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.456 Relation: [b,bi,d,di,m,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.457 Relation: [b,bi,d,di,m,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.458 Relation: [b,bi,d,di,m,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.459 Relation: [b,bi,d,di,m,mi,o,oi,s,si]

Complement relation.

$$[\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i]$$

1.460 Relation: [b,bi,d,di,m,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.461 Relation: [b,bi,d,di,m,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.462 Relation: [b,bi,d,di,m,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.463 Relation: [b,bi,d,di,m,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] & \text{if } \ell_j = 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.464 Relation: [b,bi,d,di,m,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.465 Relation: [b,bi,d,di,m,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.466 Relation: [b,bi,d,di,m,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.467 Relation: [b,bi,d,di,m,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \geq \ell_j - 1 \end{cases}$$

1.468 Relation: [b,bi,d,di,m,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.469 Relation: [b,bi,d,di,m,mi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.470 Relation: [b,bi,d,di,m,mi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.471 Relation: [b,bi,d,di,m,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.472 Relation: [b,bi,d,di,m,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.473 Relation: [b,bi,d,di,m,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.474 Relation: [b,bi,d,di,m,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > 1 \end{cases}$$

1.475 Relation: [b,bi,d,di,m,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.476 Relation: [b,bi,d,di,m,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.477 Relation: [b,bi,d,di,m,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.478 Relation: [b,bi,d,di,m,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.479 Relation: [b,bi,d,di,m,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.480 Relation: [b,bi,d,di,m,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.481 Relation: [b,bi,d,di,m,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.482 Relation: [b,bi,d,di,m,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \end{cases}$$

1.483 Relation: [b,bi,d,di,m,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.484 Relation: [b,bi,d,di,m,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.485 Relation: [b,bi,d,di,m,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.486 Relation: [b,bi,d,di,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.487 Relation: [b,bi,d,di,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.488 Relation: [b,bi,d,di,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{\sigma_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{\sigma_j}, \underline{o_j}] \cup [\underline{\sigma_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{\sigma_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{\sigma_j}, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{\sigma_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{\sigma_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{\sigma_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\underline{\sigma_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{\sigma_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\underline{\sigma_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\underline{\sigma_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\underline{\sigma_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.489 Relation: [b,bi,d,di,mi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, o_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.490 **Relation:** [b,bi,d,di,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_j > 1 \end{cases}$$

1.491 Relation: [b,bi,d,di,mi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - 1, o_j] \cup [\underline{o_j} + \ell_j - 1, o_j + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, o_j] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, o_j + 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.492 **Relation:** [b,bi,d,di,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, o_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, o_j - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \overline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, o_j - \ell_i + 1] \cup [\overline{o_j}, o_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, o_j - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, o_j + \ell_j - \ell_i] \cup [\overline{o_j}, o_j + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.493 **Relation:** [b,bi,d,di,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.494 Relation: [b,bi,d,di,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.495 Relation: [b,bi,d,di,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.496 Relation: [b,bi,d,di,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.497 Relation: [b,bi,d,di,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.498 Relation: [b,bi,d,di,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \geq \ell_j - 1 \end{cases}$$

1.499 Relation: [b,bi,d,di,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

Complement relation.

Complement relation.

Complement relation.

Complement relation.

Complement relation.

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1.510 Relation: [b,bi,d,di,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.511 Relation: [b,bi,d,di,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.512 Relation: [b,bi,d,di,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.513 Relation: [b,bi,d,di,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, o_j] \cup [\overline{o_j} + \ell_j - 1, o_j + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 1, o_j + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, o_j + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, o_j + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \end{cases}$$

1.514 Relation: [b,bi,d,di,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.515 Relation: [b,bi,d,di,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.516 Relation: [b,bi,d,di,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.517 Relation: [b,bi,d,e]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \end{cases}$$

1.518 Relation: [b,bi,d,e,f]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.519 Relation: [b,bi,d,e,f,fi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.520 Relation: [b,bi,d,e,f,fi,m]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.521 Relation: [b,bi,d,e,f,fi,m,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.522 Relation: [b,bi,d,e,f,fi,m,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.523 Relation: [b,bi,d,e,f,fi,m,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i < \ell_j \\ \emptyset & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.524 Relation: [b,bi,d,e,f,fi,m,mi,o,oi,s]

Complement relation.

$$\begin{cases} \emptyset & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.525 Relation: [b,bi,d,e,f,fi,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} \emptyset & \text{if } \ell_i \leq \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.526 Relation: [b,bi,d,e,f,fi,m,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \\ \emptyset & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.527 Relation: [b,bi,d,e,f,fi,m,mi,o,s]

Complement relation.

$$\begin{cases} \emptyset & \text{if } \ell_i = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > 1 \end{cases}$$

1.528 Relation: [b,bi,d,e,f,fi,m,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.529 Relation: [b,bi,d,e,f,fi,m,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ \emptyset & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.530 Relation: [b,bi,d,e,f,fi,m,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{cases}$$

1.531 Relation: [b,bi,d,e,f,fi,m,mi,oi,s]

Complement relation.

$$\begin{cases} \emptyset & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.532 Relation: [b,bi,d,e,f,fi,m,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.533 Relation: [b,bi,d,e,f,fi,m,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i < \ell_j \\ \emptyset & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.534 Relation: [b,bi,d,e,f,fi,m,mi,s]

Complement relation.

$$\begin{cases} \emptyset & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.535 Relation: [b,bi,d,e,f,fi,m,mi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.536 Relation: [b,bi,d,e,f,fi,m,mi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ \emptyset & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.537 Relation: [b,bi,d,e,f,fi,m,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.538 Relation: [b,bi,d,e,f,fi,m,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.539 Relation: [b,bi,d,e,f,fi,m,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 2, \underline{o_j} + \ell_j] & \text{if } \ell_j = 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.540 Relation: [b,bi,d,e,f,fi,m,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.541 Relation: [b,bi,d,e,f,fi,m,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.542 Relation: [b,bi,d,e,f,fi,m,o,s]

Complement relation.

$$[\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j]$$

1.543 Relation: [b,bi,d,e,f,fi,m,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.544 Relation: [b,bi,d,e,f,fi,m,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.545 Relation: [b,bi,d,e,f,fi,m,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.546 Relation: [b,bi,d,e,f,fi,m,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.552 Relation: [b,bi,d,e,f,fi,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.553 Relation: [b,bi,d,e,f,fi,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.554 Relation: [b,bi,d,e,f,fi,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.555 Relation: [b,bi,d,e,f,fi,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.556 Relation: [b,bi,d,e,f,fi,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i \leq \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.557 Relation: [b,bi,d,e,f,fi,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.558 Relation: [b,bi,d,e,f,fi,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} - 1] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > 1 \end{cases}$$

1.559 Relation: [b,bi,d,e,f,fi,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.560 Relation: [b,bi,d,e,f,fi,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.561 Relation: [b,bi,d,e,f,fi,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.562 Relation: [b,bi,d,e,f,fi,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.563 Relation: [b,bi,d,e,f,fi,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 2] & \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

Complement relation.

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

Complement relation.

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} - 1] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

Complement relation.

Complement relation.

$$\begin{cases} [\underline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

Complement relation.

Complement relation.

$[\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1]$	if $\ell_i < \ell_j \wedge \ell_i > 1$
$[\overline{o_j} - 1, \underline{o_j}]$	if $\ell_i = 1 \wedge \ell_j > 1$
$[\overline{o_j} - \ell_i, \underline{o_j} - \ell_i]$	if $\ell_i \leq \ell_j + 1 \wedge \ell_j = 1$
$[\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1]$	if $\ell_i > \ell_j + 1 \wedge \ell_j = 1$
$[\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1]$	if $\ell_i > \ell_j + 1 \wedge \ell_j > 1$
$[\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1]$	if $\ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1$

Complement relation.

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

Complement relation.

Complement relation.

$$\begin{cases} [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\underline{o_j} - \ell_i, \underline{o_j} - 2\ell_i + 2] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.570 Relation: [b,bi,d,e,f,fi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.571 Relation: [b,bi,d,e,f,fi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.572 Relation: [b,bi,d,e,f,fi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.573 Relation: [b,bi,d,e,f,fi,o,s]

Complement relation.

$$[\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j]$$

1.574 Relation: [b,bi,d,e,f,fi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.575 Relation: [b,bi,d,e,f,fi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.576 Relation: [b,bi,d,e,f,fi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.577 Relation: [b,bi,d,e,f,fi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} - \ell_i + 2, \underline{o_j} + \ell_j] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.578 Relation: [b,bi,d,e,f,fi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.579 Relation: [b,bi,d,e,f,fi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.580 Relation: [b,bi,d,e,f,fi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.581 Relation: [b,bi,d,e,f,fi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.582 Relation: [b,bi,d,e,f,fi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.583 Relation: [b,bi,d,e,f,m]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.584 Relation: [b,bi,d,e,f,m,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.585 Relation: [b,bi,d,e,f,m,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.586 Relation: [b,bi,d,e,f,m,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i < \ell_j \\ \emptyset & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.587 Relation: [b,bi,d,e,f,m,mi,o,oi,s]

Complement relation.

$$\begin{cases} \emptyset & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.588 Relation: [b,bi,d,e,f,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} \emptyset & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.589 Relation: [b,bi,d,e,f,m,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i < \ell_j \\ \emptyset & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.590 Relation: [b,bi,d,e,f,m,mi,o,s]

Complement relation.

$$\begin{cases} \emptyset & \text{if } \ell_i = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.591 Relation: [b,bi,d,e,f,m,mi,o,s,si]

Complement relation.

$$\begin{cases} \emptyset & \text{if } \ell_i = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.592 Relation: [b,bi,d,e,f,m,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.593 Relation: [b,bi,d,e,f,m,mi,oi]

Complement relation.

$$\begin{cases} \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i \neq \ell_j \end{cases}$$

1.594 Relation: [b,bi,d,e,f,m,mi,oi,s]

Complement relation.

$$\begin{cases} \emptyset & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.595 Relation: [b,bi,d,e,f,m,mi,oi,s,si]

Complement relation.

$$\begin{cases} \emptyset & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > 1 \end{cases}$$

1.596 Relation: [b,bi,d,e,f,m,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i < \ell_j \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.597 Relation: [b,bi,d,e,f,m,mi,s]

Complement relation.

$$\begin{cases} \emptyset & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.598 Relation: [b,bi,d,e,f,m,mi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.599 Relation: [b,bi,d,e,f,m,mi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.600 Relation: [b,bi,d,e,f,m,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.601 Relation: [b,bi,d,e,f,m,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.602 Relation: [b,bi,d,e,f,m,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.603 Relation: [b,bi,d,e,f,m,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.604 Relation: [b,bi,d,e,f,m,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.605 Relation: [b,bi,d,e,f,m,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.606 Relation: [b,bi,d,e,f,m,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.607 Relation: [b,bi,d,e,f,m,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.608 Relation: [b,bi,d,e,f,m,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \ell_j > 1 \end{cases}$$

1.609 Relation: [b,bi,d,e,f,m,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.610 Relation: [b,bi,d,e,f,m,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > 1 \end{cases}$$

1.611 Relation: [b,bi,d,e,f,m,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.612 Relation: [b,bi,d,e,f,m,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.613 Relation: [b,bi,d,e,f,m,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.614 Relation: [b,bi,d,e,f,m,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.615 Relation: [b,bi,d,e,f,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.616 Relation: [b,bi,d,e,f,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.617 Relation: [b,bi,d,e,f,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.618 Relation: [b,bi,d,e,f,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.619 Relation: [b,bi,d,e,f,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.620 Relation: [b,bi,d,e,f,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.621 Relation: [b,bi,d,e,f,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} - 1] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.622 Relation: [b,bi,d,e,f,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.623 Relation: [b,bi,d,e,f,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.624 Relation: [b,bi,d,e,f,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i \neq \ell_j \end{cases}$$

1.625 Relation: [b,bi,d,e,f,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.626 Relation: [b,bi,d,e,f,mi,oi,s,si]

Complement relation.

$$[\overline{o_j} - \ell_i, \underline{o_j} - 1]$$

1.627 Relation: [b,bi,d,e,f,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.628 Relation: [b,bi,d,e,f,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} - 1] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.629 Relation: [b,bi,d,e,f,mi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.630 Relation: [b,bi,d,e,f,mi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.631 Relation: [b,bi,d,e,f,o]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.632 Relation: [b,bi,d,e,f,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} < \underline{\ell_j} \wedge \underline{\ell_i} > 1 \\ [\underline{o_j} - 1, \underline{o_j}] \cup [\underline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} = 1 \wedge \underline{\ell_j} > 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} = \underline{\ell_j} \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} + 1] & \text{if } \underline{\ell_i} > 1 \wedge \underline{\ell_j} = 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j}] \cup [\underline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} > \underline{\ell_j} \wedge \underline{\ell_j} > 1 \end{array} \right.$$

1.633 **Relation:** [b,bi,d,e,f,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.634 Relation: [b,bi,d,e,f,o,oi,s,si]

Complement relation.

$$\begin{cases} [\underline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \underline{o_j}, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.635 Relation: [b,bi,d,e,f,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} < \underline{\ell_j} \wedge \underline{\ell_i} > 1 \\ [\underline{o_j} - 1, \underline{o_j}] \cup [\underline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} = 1 \wedge \underline{\ell_j} > 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} = \underline{\ell_j} \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + 1] & \text{if } \underline{\ell_i} > 1 \wedge \underline{\ell_j} = 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\underline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} > \underline{\ell_j} \wedge \underline{\ell_j} > 1 \end{array} \right.$$

1.636 Relation: [b,bi,d,e,f,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.637 Relation: [b,bi,d,e,f,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.638 Relation: [b,bi,d,e,f,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.639 Relation: [b,bi,d,e,f,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \ell_j > 1 \end{cases}$$

1.640 Relation: [b,bi,d,e,f,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.641 Relation: [b,bi,d,e,f,oi,s,si]

Complement relation.

$$[\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j]$$

1.642 Relation: [b,bi,d,e,f,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.643 Relation: [b,bi,d,e,f,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.644 Relation: [b,bi,d,e,f,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.645 Relation: [b,bi,d,e,f,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.646 Relation: [b,bi,d,e,fi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.647 Relation: [b,bi,d,e,fi,m]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.648 Relation: [b,bi,d,e,fi,m,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.649 Relation: [b,bi,d,e,fi,m,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \end{cases}$$

1.650 Relation: [b,bi,d,e,fi,m,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\ \emptyset & \text{if } \ell_i = \ell_j \\ [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.651 Relation: [b,bi,d,e,fi,m,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ \emptyset & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.652 Relation: [b,bi,d,e,fi,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \\ \emptyset & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.653 Relation: [b,bi,d,e,fi,m,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \\ \emptyset & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.654 Relation: [b,bi,d,e,fi,m,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.655 Relation: [b,bi,d,e,fi,m,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\ \emptyset & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.656 Relation: [b,bi,d,e,fi,m,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \\ \emptyset & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.657 Relation: [b,bi,d,e,fi,m,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + 2\ell_j - 2\ell_i - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.658 Relation: [b,bi,d,e,fi,m,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.659 Relation: [b,bi,d,e,fi,m,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ \emptyset & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.660 Relation: [b,bi,d,e,fi,m,mi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j - 1 \\ \emptyset & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.661 Relation: [b,bi,d,e,fi,m,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.662 Relation: [b,bi,d,e,fi,m,mi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.663 Relation: [b,bi,d,e,fi,m,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \\ \emptyset & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.664 Relation: [b,bi,d,e,fi,m,o]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \neq \ell_j + 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \end{array} \right.$$

1.665 Relation: [b,bi,d,e,fi,m,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.666 Relation: [b,bi,d,e,fi,m,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.667 Relation: [b,bi,d,e,fi,m,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.668 Relation: [b,bi,d,e,fi,m,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_j + 2, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.669 Relation: [b,bi,d,e,fi,m,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.670 Relation: [b,bi,d,e,fi,m,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.671 Relation: [b,bi,d,e,fi,m,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.672 Relation: [b,bi,d,e,fi,m,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + 2\ell_j - 2\ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

Complement relation.

Complement relation.

Complement relation.

Complement relation.

Complement relation.

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1.678 Relation: [b,bi,d,e,fi,m,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.679 Relation: [b,bi,d,e,fi,mi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.680 Relation: [b,bi,d,e,fi,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + 2\ell_j - 2\ell_i - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 2\ell_i + 2] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.681 Relation: [b,bi,d,e,fi,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.682 Relation: [b,bi,d,e,fi,mi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.683 Relation: [b,bi,d,e,fi,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.684 Relation: [b,bi,d,e,fi,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + 2\ell_j - 2\ell_i - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.685 Relation: [b,bi,d,e,fi,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.686 Relation: [b,bi,d,e,fi,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} - \ell_i + 2, \underline{o_j} + 2\ell_j - 3] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.687 Relation: [b,bi,d,e,fi,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + 2\ell_j - \ell_i - 2] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.688 Relation: [b,bi,d,e,fi,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + 2\ell_j - 2\ell_i - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.689 Relation: [b,bi,d,e,fi,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.690 Relation: [b,bi,d,e,fi,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.691 Relation: [b,bi,d,e,fi,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.692 Relation: [b,bi,d,e,fi,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.693 Relation: [b,bi,d,e,fi,mi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.699 Relation: [b,bi,d,e,fi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.700 Relation: [b,bi,d,e,fi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.701 Relation: [b,bi,d,e,fi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.702 Relation: [b,bi,d,e,fi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.703 Relation: [b,bi,d,e,fi,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 2\ell_i + 2] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.704 Relation: [b,bi,d,e,fi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{cases}$$

1.705 Relation: [b,bi,d,e,fi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.706 Relation: [b,bi,d,e,fi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{\overline{o_j}} - 1, \underline{o_j}] \cup [\underline{\overline{o_j}} + \underline{\ell_j} - 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{\overline{o_j}} - \ell_i, \underline{o_j}] \cup [\underline{\overline{o_j}} + \underline{\ell_j} - \ell_i, \underline{o_j} + \underline{\ell_j} - \ell_i] \cup [\underline{\overline{o_j}} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{\overline{o_j}} - 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{\overline{o_j}} - \ell_i, \underline{o_j} + 1] \cup [\underline{\overline{o_j}} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{\overline{o_j}} - \ell_i, \underline{o_j} + \underline{\ell_j} - \ell_i - 1] \cup [\underline{\overline{o_j}} + \underline{\ell_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{\overline{o_j}} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i > \ell_j + 1 \\ [\underline{\overline{o_j}} - \ell_i, \underline{o_j} + \underline{\ell_j} - \ell_i - 1] \cup [\underline{\overline{o_j}} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.707 **Relation:** [b,bi,d,e,fi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.708 Relation: [b,bi,d,e,fi,s,si]

Complement relation.

$$\begin{cases} [\underline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - 2] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.709 Relation: [b,bi,d,e,fi,si]

Complement relation.

$$\begin{cases} [\underline{o_j} - \ell_i, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.710 Relation: [b,bi,d,e,m]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_j + 2, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.711 Relation: [b,bi,d,e,m,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \end{cases}$$

1.712 Relation: [b,bi,d,e,m,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_j + \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.713 Relation: [b,bi,d,e,m,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\ \emptyset & \text{if } \ell_i = \ell_j \\ [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.714 Relation: [b,bi,d,e,m,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ \emptyset & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.715 Relation: [b,bi,d,e,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ \emptyset & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.716 Relation: [b,bi,d,e,m,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\ \emptyset & \text{if } \ell_i = \ell_j \\ [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.717 Relation: [b,bi,d,e,m,mi,o,s]

Complement relation.

$$\begin{cases} \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \end{cases}$$

1.718 Relation: [b,bi,d,e,m,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.719 Relation: [b,bi,d,e,m,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_j + \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.720 Relation: [b,bi,d,e,m,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + 2\ell_j - 2\ell_i - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.721 Relation: [b,bi,d,e,m,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.722 Relation: [b,bi,d,e,m,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.723 Relation: [b,bi,d,e,m,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.724 Relation: [b,bi,d,e,m,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.725 Relation: [b,bi,d,e,m,mi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.726 Relation: [b,bi,d,e,m,mi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.727 Relation: [b,bi,d,e,m,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_j + \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.728 Relation: [b,bi,d,e,m,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.729 Relation: [b,bi,d,e,m,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.730 Relation: [b,bi,d,e,m,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.731 Relation: [b,bi,d,e,m,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.732 Relation: [b,bi,d,e,m,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \end{cases}$$

1.733 Relation: [b,bi,d,e,m,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.734 Relation: [b,bi,d,e,m,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_j + \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.735 Relation: [b,bi,d,e,m,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_j + 2, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + 2\ell_j - 2\ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.736 Relation: [b,bi,d,e,m,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.737 Relation: [b,bi,d,e,m,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.738 Relation: [b,bi,d,e,m,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_j + 2, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.739 Relation: [b,bi,d,e,m,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.740 Relation: [b,bi,d,e,m,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \end{array} \right.$$

1.741 Relation: [b,bi,d,e,m,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_j + 2, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.742 Relation: [b,bi,d,e,mi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \end{array} \right.$$

1.743 Relation: [b,bi,d,e,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + 2\ell_j - 2\ell_i - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} - \ell_j + \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.744 Relation: [b,bi,d,e,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.745 Relation: [b,bi,d,e,mi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.746 Relation: [b,bi,d,e,mi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.747 Relation: [b,bi,d,e,mi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + 2\ell_j - 3] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.748 Relation: [b,bi,d,e,mi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.749 Relation: [b,bi,d,e,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.750 Relation: [b,bi,d,e,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} - \ell_j + \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + 2\ell_j - 3] & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.751 Relation: [b,bi,d,e,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + 2\ell_j - 2\ell_i - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.752 Relation: [b,bi,d,e,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.753 Relation: [b,bi,d,e,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.754 Relation: [b,bi,d,e,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.755 Relation: [b,bi,d,e,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.756 Relation: [b,bi,d,e,mi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \end{cases}$$

1.757 Relation: [b,bi,d,e,mi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.758 Relation: [b,bi,d,e,o]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.759 Relation: [b,bi,d,e,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.760 Relation: [b,bi,d,e,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \underline{\ell}_i, \underline{o_j} - \underline{\ell}_i] \cup [\overline{o_j} + \underline{\ell}_j - \underline{\ell}_i, \underline{o_j} + \underline{\ell}_j - \underline{\ell}_i] \cup [\overline{o_j} + \underline{\ell}_j, \underline{o_j} + \underline{\ell}_j] & \text{if } \underline{\ell}_i < \underline{\ell}_j \wedge \underline{\ell}_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + \underline{\ell}_j - 1, \underline{o_j} + \underline{\ell}_j] & \text{if } \underline{\ell}_i = 1 \wedge \underline{\ell}_j > 1 \\ [\overline{o_j} - \underline{\ell}_i, \underline{o_j} - \underline{\ell}_i] \cup [\overline{o_j} + \underline{\ell}_j, \underline{o_j} + \underline{\ell}_j] & \text{if } \underline{\ell}_i = \underline{\ell}_j \\ [\overline{o_j} - \underline{\ell}_i, \underline{o_j} + 1] & \text{if } \underline{\ell}_i > 1 \wedge \underline{\ell}_j = 1 \\ [\overline{o_j} - \underline{\ell}_i, \underline{o_j} - \underline{\ell}_i] \cup [\overline{o_j} + \underline{\ell}_j - \underline{\ell}_i, \underline{o_j}] \cup [\overline{o_j} + \underline{\ell}_j, \underline{o_j} + \underline{\ell}_j] & \text{if } \underline{\ell}_i > \underline{\ell}_j \wedge \underline{\ell}_j > 1 \end{array} \right.$$

1.761 Relation: [b,bi,d,e,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{\sigma_j} - \underline{\ell_i}, \underline{\sigma_j} - \underline{\ell_i}] \cup [\underline{\sigma_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{\sigma_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\underline{\sigma_j} + \underline{\ell_j}, \underline{\sigma_j} + \underline{\ell_j}] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\underline{\sigma_j} - \underline{\ell_i}, \underline{\sigma_j} - 1] \cup [\underline{\sigma_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{\sigma_j} + \underline{\ell_j}] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{\sigma_j} - \underline{\ell_i}, \underline{\sigma_j} - \underline{\ell_i}] \cup [\underline{\sigma_j} + \underline{\ell_j}, \underline{\sigma_j} + \underline{\ell_j}] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\underline{\sigma_j} - \underline{\ell_i}, \underline{\sigma_j} - \underline{\ell_i}] \cup [\underline{\sigma_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{\sigma_j} - 1] \cup [\underline{\sigma_j} + \underline{\ell_j}, \underline{\sigma_j} + \underline{\ell_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\underline{\sigma_j} - \underline{\ell_i}, \underline{\sigma_j} - 1] \cup [\underline{\sigma_j} + 1, \underline{\sigma_j} + \underline{\ell_j}] & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.762 **Relation:** [b,bi,d,e,o,oi,si]

Complement relation.

$$\begin{cases} [\underline{\sigma_j} - 1, \underline{\sigma_j}] \cup [\underline{\sigma_j} + \ell_j - 1, \underline{\sigma_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\underline{\sigma_j}, \underline{\sigma_j}] \cup [\underline{\sigma_j} + \ell_j - \ell_i, \underline{\sigma_j} + \ell_j - \ell_i] \cup [\underline{\sigma_j} + \ell_j, \underline{\sigma_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\underline{\sigma_j} + \ell_j, \underline{\sigma_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\underline{\sigma_j} - 1, \underline{\sigma_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\underline{\sigma_j}, \underline{\sigma_j} + 1] \cup [\underline{\sigma_j} + \ell_j, \underline{\sigma_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - 1] \cup [\underline{\sigma_j} + 1, \underline{\sigma_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\underline{\sigma_j} + \ell_j - \ell_i, \underline{\sigma_j} - 1] \cup [\underline{\sigma_j} + \ell_j, \underline{\sigma_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.763 Relation: [b,bi,d,e,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \underline{\ell}_i, \underline{o_j} - \underline{\ell}_i] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{\ell}_j] & \text{if } \underline{\ell}_i \leq \underline{\ell}_j \wedge \underline{\ell}_i \geq \underline{\ell}_j - 1 \\ [\overline{o_j} - \underline{\ell}_i, \underline{o_j} + 1] & \text{if } \underline{\ell}_i > 1 \wedge \underline{\ell}_j = 1 \\ [\overline{o_j} - \underline{\ell}_i, \underline{o_j} - \underline{\ell}_i] \cup [\overline{o_j} + \underline{\ell}_j - \underline{\ell}_i, \underline{o_j} + \underline{\ell}_j] & \text{if } \underline{\ell}_i \neq \underline{\ell}_j - 1 \wedge \underline{\ell}_i \neq \underline{\ell}_j \wedge \underline{\ell}_j > 1 \end{cases}$$

1.764 Relation: [b,bi,d,e,o,s,si]

Complement relation.

$$\begin{cases} [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.765 **Relation:** [b,bi,d,e,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - \underline{\ell_i}, \underline{o_j}] \cup [\underline{o_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_j = 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j} - \underline{\ell_j} + \underline{\ell_i} + 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.766 **Relation:** [b,bi,d,e,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\underline{o_j} - \ell_i, \underline{o_j} + 1] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j}] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.767 **Relation:** [b,bi,d,e,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{\sigma_j} - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\underline{\sigma_j} - 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\underline{\sigma_j} - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\underline{\sigma_j} - \ell_i, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\underline{\sigma_j} - \ell_i, \underline{o_j}] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.768 Relation: [b,bi,d,e,oi,s,si]

Complement relation.

$$\begin{cases} [\underline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.769 Relation: [b,bi,d,e,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + 1] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.770 Relation: [b,bi,d,e,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.771 Relation: [b,bi,d,e,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \end{cases}$$

1.772 Relation: [b,bi,d,e,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.773 Relation: [b,bi,d,f]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.774 Relation: [b,bi,d,f,fi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.775 Relation: [b,bi,d,f,fi,m]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{cases}$$

1.776 Relation: [b,bi,d,f,fi,m,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{cases}$$

1.777 Relation: [b,bi,d,f,fi,m,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.778 Relation: [b,bi,d,f,fi,m,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.779 Relation: [b,bi,d,f,fi,m,mi,o,oi,s]

Complement relation.

$$\begin{cases} \emptyset & \text{if } \ell_i < \ell_j \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.780 Relation: [b,bi,d,f,fi,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i = \ell_j \\ \emptyset & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.781 Relation: [b,bi,d,f,fi,m,mi,o,oi,si]

Complement relation.

$$\begin{cases} \emptyset & \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.782 Relation: [b,bi,d,f,fi,m,mi,o,s]

Complement relation.

$$\begin{cases} \emptyset & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.783 Relation: [b,bi,d,f,fi,m,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ \emptyset & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.784 Relation: [b,bi,d,f,fi,m,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i = 1 \\ \emptyset & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_j + \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.785 Relation: [b,bi,d,f,fi,m,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{cases}$$

1.786 Relation: [b,bi,d,f,fi,m,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{cases}$$

1.787 Relation: [b,bi,d,f,fi,m,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ \emptyset & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.788 Relation: [b,bi,d,f,fi,m,mi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} \emptyset & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.789 Relation: [b,bi,d,f,fi,m,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.790 Relation: [b,bi,d,f,fi,m,mi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ \emptyset & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.791 Relation: [b,bi,d,f,fi,m,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.792 Relation: [b,bi,d,f,fi,m,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.793 Relation: [b,bi,d,f,fi,m,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.794 Relation: [b,bi,d,f,fi,m,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.795 Relation: [b,bi,d,f,fi,m,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_i - 1, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.796 Relation: [b,bi,d,f,fi,m,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_i - 1, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.797 Relation: [b,bi,d,f,fi,m,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \end{cases}$$

1.798 Relation: [b,bi,d,f,fi,m,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_j + \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.799 Relation: [b,bi,d,f,fi,m,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_j + \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.800 Relation: [b,bi,d,f,fi,m,oi]

Complement relation.

$$\begin{cases} [\underline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\underline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{cases}$$

1.801 Relation: [b,bi,d,f,fi,m,oi,s]

Complement relation.

$$\begin{cases} [\underline{\overline{o}}_j - \ell_i + 1, \underline{o}_j - 1] \cup [\underline{\overline{o}}_j + \ell_j, \underline{o}_j + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\underline{\overline{o}}_j - \ell_i + 1, \underline{o}_j] \cup [\underline{\overline{o}}_j + \ell_j, \underline{o}_j + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\underline{\overline{o}}_j, \underline{o}_j + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{\overline{o}}_j - \ell_i + 1, \underline{o}_j + \ell_j - \ell_i - 1] \cup [\underline{\overline{o}}_j + \ell_j - \ell_i + 1, \underline{o}_j] \cup [\underline{\overline{o}}_j + \ell_j, \underline{o}_j + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\underline{\overline{o}}_j + \ell_j - \ell_i + 1, \underline{o}_j + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.802 **Relation:** [b,bi,d,f,fi,m,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_i - 1, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + 2\ell_j - 2\ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.803 **Relation:** [b,bi,d,f,fi,m,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_i - 1, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.804 Relation: [b,bi,d,f,fi,m,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.805 Relation: [b,bi,d,f,fi,m,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.806 Relation: [b,bi,d,f,fi,m,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.807 Relation: [b,bi,d,f,fi,mi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.808 Relation: [b,bi,d,f,fi,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.809 Relation: [b,bi,d,f,fi,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.810 Relation: [b,bi,d,f,fi,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.811 Relation: [b,bi,d,f,fi,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.812 Relation: [b,bi,d,f,fi,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.813 Relation: [b,bi,d,f,fi,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.814 Relation: [b,bi,d,f,fi,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + 2\ell_j - 2\ell_i] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} - \ell_j + \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.815 Relation: [b,bi,d,f,fi,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 2\ell_i + 2] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} - \ell_j + \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.816 Relation: [b,bi,d,f,fi,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.817 Relation: [b,bi,d,f,fi,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.818 Relation: [b,bi,d,f,fi,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + 2\ell_j - 2\ell_i] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.819 Relation: [b,bi,d,f,fi,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 2] & \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.820 Relation: [b,bi,d,f,fi,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.826 Relation: [b,bi,d,f,fi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.827 **Relation:** [b,bi,d,f,fi,o,oi,si]

Complement relation.

$$\begin{cases} [\underline{o_j} - 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - 2\ell_i + 2] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.828 Relation: [b,bi,d,f,fi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \end{cases}$$

1.829 **Relation:** [b,bi,d,f,fi,o,s,si]

Complement relation.

$$\begin{cases} [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i < \ell_j \\ [\underline{\overline{o_j}} - 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j} - 1] \cup [\underline{\overline{o_j}} + 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i > \ell_j + 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} - \underline{\ell_j} + \underline{\ell_i}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.830 Relation: [b,bi,d,f,fi,o,si]

Complement relation.

$$\begin{cases} [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}}, \underline{o_j}] \cup [\underline{\overline{o_j}} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} < \underline{\ell_j} \wedge \underline{\ell_i} > 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} = 1 \wedge \underline{\ell_j} = 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j}] \cup [\underline{\overline{o_j}} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} = 1 \wedge \underline{\ell_j} > 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j} - 1] \cup [\underline{\overline{o_j}} + 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} > \underline{\ell_j} + 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} - \underline{\ell_j} + \underline{\ell_i}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} \geq \underline{\ell_j} \wedge \underline{\ell_i} \leq \underline{\ell_j} + 1 \wedge \underline{\ell_i} > 1 \end{cases}$$

1.831 Relation: [b,bi,d,f,fi,oi]

Complement relation.

$$\begin{cases} [\underline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j}] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} - \ell_i + 2, \underline{o_j} + \ell_j] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.832 Relation: [b,bi,d,f,fi,oi,s]

Complement relation.

$$\begin{cases} [\underline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\underline{o_j} - 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j}] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.833 **Relation:** [b,bi,d,f,fi,oi,s,si]

Complement relation.

$$\begin{cases} [\underline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\underline{o_j} - 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + 2\ell_j - 2\ell_i] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.834 Relation: [b,bi,d,f,fi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 2] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.835 **Relation:** [b,bi,d,f,fi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.836 Relation: [b,bi,d,f,fi,s,si]

Complement relation.

$$\begin{cases} [\underline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\underline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\underline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.837 Relation: [b,bi,d,f,fi,si]

Complement relation.

$$\begin{cases} [\underline{o_j} - \ell_i, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\underline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\underline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.838 Relation: [b,bi,d,f,m]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.839 Relation: [b,bi,d,f,m,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.840 Relation: [b,bi,d,f,m,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.841 Relation: [b,bi,d,f,m,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.842 Relation: [b,bi,d,f,m,mi,o,oi,s]

Complement relation.

$$\begin{cases} \emptyset & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.843 Relation: [b,bi,d,f,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} \emptyset & \text{if } \ell_i < \ell_j \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.844 Relation: [b,bi,d,f,m,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.845 Relation: [b,bi,d,f,m,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.846 Relation: [b,bi,d,f,m,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.847 Relation: [b,bi,d,f,m,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i = 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.848 Relation: [b,bi,d,f,m,mi,oi]

Complement relation.

$$[\overline{o_j} - \ell_i + 1, \underline{o_j}]$$

1.849 Relation: [b,bi,d,f,m,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.850 Relation: [b,bi,d,f,m,mi,oi,s,si]

Complement relation.

$$\begin{cases} \emptyset & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i \neq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.851 Relation: [b,bi,d,f,m,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.852 Relation: [b,bi,d,f,m,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.853 Relation: [b,bi,d,f,m,mi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.854 Relation: [b,bi,d,f,m,mi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.855 Relation: [b,bi,d,f,m,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.856 Relation: [b,bi,d,f,m,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.857 Relation: [b,bi,d,f,m,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.858 Relation: [b,bi,d,f,m,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.859 Relation: [b,bi,d,f,m,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.860 Relation: [b,bi,d,f,m,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.861 Relation: [b,bi,d,f,m,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.862 Relation: [b,bi,d,f,m,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.863 Relation: [b,bi,d,f,m,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_j > 1 \end{cases}$$

1.864 Relation: [b,bi,d,f,m,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.865 Relation: [b,bi,d,f,m,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.866 Relation: [b,bi,d,f,m,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.867 Relation: [b,bi,d,f,m,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.868 Relation: [b,bi,d,f,m,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.869 Relation: [b,bi,d,f,m,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.870 Relation: [b,bi,d,f,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.871 Relation: [b,bi,d,f,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.872 Relation: [b,bi,d,f,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.873 Relation: [b,bi,d,f,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.874 Relation: [b,bi,d,f,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.875 Relation: [b,bi,d,f,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.876 Relation: [b,bi,d,f,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.877 Relation: [b,bi,d,f,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.878 Relation: [b,bi,d,f,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.879 Relation: [b,bi,d,f,mi,oi]

Complement relation.

$$[\overline{o_j} - \ell_i, \underline{o_j}]$$

1.880 Relation: [b,bi,d,f,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.881 Relation: [b,bi,d,f,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i \neq \ell_j \end{cases}$$

1.882 Relation: [b,bi,d,f,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.883 Relation: [b,bi,d,f,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.884 Relation: [b,bi,d,f,mi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.885 Relation: [b,bi,d,f,mi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.886 Relation: [b,bi,d,f,o]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.887 Relation: [b,bi,d,f,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.888 Relation: [b,bi,d,f,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.889 **Relation:** [b,bi,d,f,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} < \underline{\ell_j} \\ [\overline{o_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} = 1 \wedge \underline{\ell_j} = 1 \\ [\overline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} = \underline{\ell_j} \wedge \underline{\ell_i} > 1 \\ [\overline{o_j} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} > 1 \wedge \underline{\ell_j} = 1 \\ [\overline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} > \underline{\ell_j} \wedge \underline{\ell_j} > 1 \end{cases}$$

1.890 Relation: [b,bi,d,f,o,oi,si]

Complement relation.

$$\begin{cases} [\underline{o_j} - 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\underline{o_j} - 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.891 Relation: [b,bi,d,f,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, o_j - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, o_j + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.892 Relation: [b,bi,d,f,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\underline{o_j} - 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.893 Relation: [b,bi,d,f,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i < \underline{\ell_j} \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \underline{\ell_j} = 1 \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i = 1 \wedge \underline{\ell_j} > 1 \\ [\overline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i = \underline{\ell_j} \wedge \ell_i > 1 \\ [\overline{o_j} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \underline{\ell_j} = 1 \\ [\overline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i > \underline{\ell_j} \wedge \underline{\ell_j} > 1 \end{array} \right.$$

1.894 Relation: [b,bi,d,f,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \overline{o_j} + 1] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \overline{o_j}] \cup [\overline{o_j} + \ell_j, \overline{o_j} + \ell_j] & \text{if } \ell_j > 1 \end{cases}$$

1.895 Relation: [b,bi,d,f,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.896 Relation: [b,bi,d,f,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \end{cases}$$

1.897 Relation: [b,bi,d,f,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.898 Relation: [b,bi,d,f,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.899 Relation: [b,bi,d,f,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.900 Relation: [b,bi,d,f,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.901 Relation: [b,bi,d,fi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.902 Relation: [b,bi,d,fi,m]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 2, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.903 Relation: [b,bi,d,fi,m,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{cases}$$

1.904 Relation: [b,bi,d,fi,m,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.905 Relation: [b,bi,d,fi,m,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.906 Relation: [b,bi,d,fi,m,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.907 Relation: [b,bi,d,fi,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} \emptyset & \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.908 Relation: [b,bi,d,fi,m,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\ \emptyset & \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.909 Relation: [b,bi,d,fi,m,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.910 Relation: [b,bi,d,fi,m,mi,o,s,si]

Complement relation.

$$\begin{cases} \emptyset & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \neq \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \end{cases}$$

1.911 Relation: [b,bi,d,fi,m,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\ \emptyset & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.912 Relation: [b,bi,d,fi,m,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{cases}$$

1.913 Relation: [b,bi,d,fi,m,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.914 Relation: [b,bi,d,fi,m,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \\ \emptyset & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + 2\ell_j - 2\ell_i] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.915 Relation: [b,bi,d,fi,m,mi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\ \emptyset & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.916 Relation: [b,bi,d,fi,m,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.917 Relation: [b,bi,d,fi,m,mi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.918 Relation: [b,bi,d,fi,m,mi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\ \emptyset & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.919 Relation: [b,bi,d,fi,m,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.920 Relation: [b,bi,d,fi,m,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.921 Relation: [b,bi,d,fi,m,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.922 Relation: [b,bi,d,fi,m,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.923 Relation: [b,bi,d,fi,m,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.924 Relation: [b,bi,d,fi,m,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.925 Relation: [b,bi,d,fi,m,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \neq \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \end{cases}$$

1.926 Relation: [b,bi,d,fi,m,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.927 Relation: [b,bi,d,fi,m,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.928 Relation: [b,bi,d,fi,m,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{cases}$$

1.929 Relation: [b,bi,d,fi,m,oi,s,si]

Complement relation.

$$\begin{cases} [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i + 1, \underline{o_j} + \underline{\ell_j} - \ell_i - 1] \cup [\underline{o_j} + \underline{\ell_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i + 1, \underline{o_j} + 2\ell_j - 2\ell_i] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\underline{o_j} + 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\underline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i = 1 \end{cases}$$

1.930 Relation: [b,bi,d,fi,m,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \underline{\ell_j} - 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i < \underline{\ell_j} - 1 \wedge \ell_i = 1 \\ [\underline{o_j} - \underline{\ell_i} + 1, \underline{o_j}] \cup [\underline{o_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\underline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i < \underline{\ell_j} - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - \underline{\ell_i} + 1, \underline{o_j} + 1] \cup [\underline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i = \underline{\ell_j} - 1 \wedge \ell_i > 1 \\ [\underline{o_j} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > \underline{\ell_j} + 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \underline{\ell_i} + 1, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i} - 1] \cup [\underline{o_j} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j} - 1] \cup [\underline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i > \underline{\ell_j} + 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \underline{\ell_i} + 1, \underline{o_j} + 2\underline{\ell_j} - 2\underline{\ell_i}] \cup [\underline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i \geq \underline{\ell_j} \wedge \ell_i \leq \underline{\ell_j} + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\underline{o_j} + \underline{\ell_i} - 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i \geq \underline{\ell_j} - 1 \wedge \ell_i \leq \underline{\ell_j} + 1 \wedge \min(\ell_i, \underline{\ell_j}) = 1 \end{array} \right.$$

1.931 Relation: [b,bi,d,fi,m,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{cases}$$

1.932 Relation: [b,bi,d,fi,m,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i = 1 \end{array} \right.$$

1.933 Relation: [b,bi,d,fi,m,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_i - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.934 Relation: [b,bi,d,fi,mi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.935 Relation: [b,bi,d,fi,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 2\ell_i + 2] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.936 Relation: [b,bi,d,fi,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.937 Relation: [b,bi,d,fi,mi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.938 Relation: [b,bi,d,fi,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.939 Relation: [b,bi,d,fi,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.940 Relation: [b,bi,d,fi,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.941 Relation: [b,bi,d,fi,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \neq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + 2\ell_j - 2\ell_i] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} - \ell_i + 2, \underline{o_j} + 2\ell_j - 3] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.942 Relation: [b,bi,d,fi,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 2\ell_i + 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.943 Relation: [b,bi,d,fi,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.944 Relation: [b,bi,d,fi,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.945 Relation: [b,bi,d,fi,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + 2\ell_j - 2\ell_i] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.946 Relation: [b,bi,d,fi,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + 2\ell_j - 2\ell_i] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.947 Relation: [b,bi,d,fi,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.948 Relation: [b,bi,d,fi,mi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.949 Relation: [b,bi,d,fi,mi,si]

Complement relation.

$[\overline{o_j} - \ell_i, o_j] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1]$	if $\ell_i < \ell_j - 1$
$[\overline{o_j} - \ell_i, o_j + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1]$	if $\ell_i = \ell_j + 1 \wedge \ell_j > 1$
$[\overline{o_j} - \ell_i, o_j + \ell_j - 1]$	if $\ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1$
$[\overline{o_j} - \ell_i, o_j - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1]$	if $\ell_i > \ell_j + 1 \wedge \ell_j = 1$
$[\overline{o_j} - \ell_i, o_j + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1]$	if $\ell_i > \ell_j + 1 \wedge \ell_j > 1$
$[\overline{o_j} - \ell_i, o_j + \ell_j - 2\ell_i + 1]$	if $\ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1$

1.950 Relation: [b,bi,d,fi,o]

Complement relation.

$$\begin{cases} [\underline{o_j} - \ell_i, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.951 Relation: [b,bi,d,fi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\overline{\sigma_j}, \underline{\sigma_j}] \cup [\sigma_j + \ell_j - \ell_i, \underline{\sigma_j} + \ell_j - \ell_i] \cup [\overline{\sigma_j} + \ell_j, \underline{\sigma_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\overline{\sigma_j}, \underline{\sigma_j} + 1] \cup [\overline{\sigma_j} + \ell_j, \underline{\sigma_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{\sigma_j} - 1, \underline{\sigma_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{\sigma_j} - \ell_i, \underline{\sigma_j} - 2\ell_i + 2] \cup [\overline{\sigma_j} + \ell_j - 1, \underline{\sigma_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\overline{\sigma_j} + \ell_j - \ell_i + 1, \underline{\sigma_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\overline{\sigma_j} + \ell_j - \ell_i + 1, \underline{\sigma_j}] \cup [\overline{\sigma_j} + \ell_j, \underline{\sigma_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\overline{\sigma_j}, \underline{\sigma_j}] \cup [\overline{\sigma_j} + \ell_j, \underline{\sigma_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.952 Relation: [b,bi,d,fi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j} - 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j}] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.953 **Relation:** [b,bi,d,fi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\underline{o_j} - 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\underline{o_j} - 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.954 Relation: [b,bi,d,fi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.955 Relation: [b,bi,d,fi,o,s]

Complement relation.

$$\begin{cases} [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\underline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.956 Relation: [b,bi,d,fi,o,s,si]

Complement relation.

$$\begin{cases} [\underline{o_j} - 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \neq \ell_j - 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \end{cases}$$

1.957 Relation: [b,bi,d,fi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - 1, \underline{o_j}] \cup [\underline{o_j} + \underline{\ell_j} - 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j} + 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i = \ell_j + 1 \\ [\underline{o_j} - 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.958 Relation: [b,bi,d,fi,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 2\ell_i + 2] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \underline{\ell_i} + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.959 Relation: [b,bi,d,fi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.960 Relation: [b,bi,d,fi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + 2\ell_j - 2\ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.961 Relation: [b,bi,d,fi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + 2\ell_j - 2\ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.962 Relation: [b,bi,d,fi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.963 Relation: [b,bi,d,fi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.964 Relation: [b,bi,d,fi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.965 Relation: [b,bi,d,m]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \end{cases}$$

1.966 Relation: [b,bi,d,m,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \end{cases}$$

1.967 Relation: [b,bi,d,m,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.968 Relation: [b,bi,d,m,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.969 Relation: [b,bi,d,m,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.970 Relation: [b,bi,d,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.971 Relation: [b,bi,d,m,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.972 Relation: [b,bi,d,m,mi,o,s]

Complement relation.

$$[\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1]$$

1.973 Relation: [b,bi,d,m,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.974 Relation: [b,bi,d,m,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.975 Relation: [b,bi,d,m,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.976 Relation: [b,bi,d,m,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.977 Relation: [b,bi,d,m,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.978 Relation: [b,bi,d,m,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.979 Relation: [b,bi,d,m,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.980 Relation: [b,bi,d,m,mi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.981 Relation: [b,bi,d,m,mi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.982 Relation: [b,bi,d,m,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.983 Relation: [b,bi,d,m,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.984 Relation: [b,bi,d,m,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.985 Relation: [b,bi,d,m,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.986 Relation: [b,bi,d,m,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.987 Relation: [b,bi,d,m,o,s]

Complement relation.

$$[\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j]$$

1.988 Relation: [b,bi,d,m,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.989 Relation: [b,bi,d,m,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.990 Relation: [b,bi,d,m,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.991 Relation: [b,bi,d,m,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.992 Relation: [b,bi,d,m,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.993 Relation: [b,bi,d,m,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.994 Relation: [b,bi,d,m,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.995 Relation: [b,bi,d,m,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.996 Relation: [b,bi,d,m,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.997 Relation: [b,bi,d,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \end{cases}$$

1.998 Relation: [b,bi,d,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.999 Relation: [b,bi,d,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.1000 Relation: [b,bi,d,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1001 Relation: [b,bi,d,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1002 Relation: [b,bi,d,mi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - \underline{\ell_i}, \underline{o_j}] \cup [\underline{o_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - 1] & \text{if } \ell_i < \underline{\ell_j} - 1 \wedge \ell_i = 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] & \text{if } \ell_i < \underline{\ell_j} - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - 1] & \text{if } \ell_i \leq \underline{\ell_j} \wedge \ell_i \geq \underline{\ell_j} - 1 \wedge \ell_i = 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] & \text{if } \ell_i \leq \underline{\ell_j} \wedge \ell_i \geq \underline{\ell_j} - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \underline{\ell_j} = 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} - 1] & \text{if } \ell_i > \underline{\ell_j} \wedge \underline{\ell_j} > 1 \end{array} \right.$$

1.1003 Relation: [b,bi,d,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_j > 1 \end{cases}$$

1.1004 Relation: [b,bi,d,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1005 Relation: [b,bi,d,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{\overline{o_j}} - 1, \underline{o_j}] \cup [\underline{\overline{o_j}} + \underline{\ell_j} - 1, \underline{o_j} + \underline{\ell_j} - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{\overline{o_j}} - \underline{\ell_i}] \cup [\underline{\overline{o_j}}, \underline{o_j}] \cup [\underline{\overline{o_j}} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{\overline{o_j}} - 1, \underline{o_j} + \underline{\ell_j} - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{\overline{o_j}} - \underline{\ell_j}, \underline{\overline{o_j}} - \underline{\ell_i}] \cup [\underline{\overline{o_j}}, \underline{o_j} + \underline{\ell_j} - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{\overline{o_j}} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\underline{\overline{o_j}} + 1, \underline{o_j} + \underline{\ell_j} - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.1006 Relation: [b,bi,d,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.1007 Relation: [b,bi,d,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.1008 Relation: [b,bi,d,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1009 Relation: [b,bi,d,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1010 Relation: [b,bi,d,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.1011 Relation: [b,bi,d,mi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1012 Relation: [b,bi,d,mi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

Complement relation.

Complement relation.

Complement relation.

Complement relation.

Complement relation.

Complement relation.

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1.1024 Relation: [b,bi,d,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1025 Relation: [b,bi,d,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.1026 Relation: [b,bi,d,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1027 Relation: [b,bi,d,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1028 Relation: [b,bi,di]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.1029 Relation: [b,bi,di,e]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.1030 Relation: [b,bi,di,e,f]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.1031 Relation: [b,bi,di,e,f,fi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1032 Relation: [b,bi,di,e,f,fi,m]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1033 Relation: [b,bi,di,e,f,fi,m,mi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.1034 Relation: [b,bi,di,e,f,fi,m,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.1035 Relation: [b,bi,di,e,f,fi,m,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j \\ \emptyset & \text{if } \ell_i = \ell_j \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1036 Relation: [b,bi,di,e,f,fi,m,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\ \emptyset & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1037 Relation: [b,bi,di,e,f,fi,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\ \emptyset & \text{if } \ell_i \geq \ell_j - 1 \end{cases}$$

1.1038 Relation: [b,bi,di,e,f,fi,m,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j \\ \emptyset & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.1039 Relation: [b,bi,di,e,f,fi,m,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1040 Relation: [b,bi,di,e,f,fi,m,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ \emptyset & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.1041 Relation: [b,bi,di,e,f,fi,m,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ \emptyset & \text{if } \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.1042 Relation: [b,bi,di,e,f,fi,m,mi,oi]

Complement relation.

$$\begin{cases} \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \neq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.1043 Relation: [b,bi,di,e,f,fi,m,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1044 Relation: [b,bi,di,e,f,fi,m,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ \emptyset & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.1045 Relation: [b,bi,di,e,f,fi,m,mi,oi,si]

Complement relation.

$$\begin{cases} \emptyset & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_j > 1 \end{cases}$$

1.1046 Relation: [b,bi,di,e,f,fi,m,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1047 Relation: [b,bi,di,e,f,fi,m,mi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 2, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ \emptyset & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.1048 Relation: [b,bi,di,e,f,fi,m,mi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ \emptyset & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1049 Relation: [b,bi,di,e,f,fi,m,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1050 Relation: [b,bi,di,e,f,fi,m,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1051 Relation: [b,bi,di,e,f,fi,m,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1052 Relation: [b,bi,di,e,f,fi,m,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \end{cases}$$

1.1053 Relation: [b,bi,di,e,f,fi,m,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.1054 Relation: [b,bi,di,e,f,fi,m,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1055 Relation: [b,bi,di,e,f,fi,m,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.1056 Relation: [b,bi,di,e,f,fi,m,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.1057 Relation: [b,bi,di,e,f,fi,m,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1058 Relation: [b,bi,di,e,f,fi,m,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1059 Relation: [b,bi,di,e,f,fi,m,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.1060 Relation: [b,bi,di,e,f,fi,m,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_j > 1 \end{cases}$$

1.1061 Relation: [b,bi,di,e,f,fi,m,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1062 Relation: [b,bi,di,e,f,fi,m,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 2, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.1063 Relation: [b,bi,di,e,f,fi,m,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1064 Relation: [b,bi,di,e,f,fi,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1065 Relation: [b,bi,di,e,f,fi,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1066 Relation: [b,bi,di,e,f,fi,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.1067 Relation: [b,bi,di,e,f,fi,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1068 Relation: [b,bi,di,e,f,fi,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i \geq \ell_j - 1 \end{cases}$$

1.1069 Relation: [b,bi,di,e,f,fi,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.1070 Relation: [b,bi,di,e,f,fi,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1071 Relation: [b,bi,di,e,f,fi,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.1072 Relation: [b,bi,di,e,f,fi,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.1073 Relation: [b,bi,di,e,f,fi,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.1074 Relation: [b,bi,di,e,f,fi,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.1075 Relation: [b,bi,di,e,f,fi,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.1076 Relation: [b,bi,di,e,f,fi,mi,oi,si]

Complement relation.

$$[\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1]$$

1.1077 Relation: [b,bi,di,e,f,fi,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1078 **Relation:** [b,bi,di,e,f,fi,mi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 2, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.1079 Relation: [b,bi,di,e,f,fi,mi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1080 Relation: [b,bi,di,e,f,fi,o]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1081 Relation: [b,bi,di,e,f,fi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, o_j - \ell_i] \cup [\overline{o_j}, o_j + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 1, o_j + \ell_j - 2] \cup [\overline{o_j} + \ell_j, o_j + \ell_j] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, o_j - \ell_i] \cup [\overline{o_j} + \ell_j, o_j + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, o_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, o_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, o_j + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.1082 **Relation:** [b,bi,di,e,f,fi,o,oi,s]

Complement relation.

$$\begin{cases} [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j} + 1, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i} - 1] \cup [\underline{\overline{o_j}} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i < \ell_j - 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i \leq \ell_j \wedge \underline{\ell_i} \geq \underline{\ell_j} - 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \underline{\ell_j} = 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}}, \underline{o_j}] \cup [\underline{\overline{o_j}} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i > \ell_j \wedge \underline{\ell_j} > 1 \end{cases}$$

1.1083 Relation: [b,bi,di,e,f,fi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \end{cases}$$

1.1084 Relation: [b,bi,di,e,f,fi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.1085 Relation: [b,bi,di,e,f,fi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1086 Relation: [b,bi,di,e,f,fi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 2, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.1087 Relation: [b,bi,di,e,f,fi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.1088 Relation: [b,bi,di,e,f,fi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1089 Relation: [b,bi,di,e,f,fi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1090 Relation: [b,bi,di,e,f,fi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1091 Relation: [b,bi,di,e,f,fi,oi,si]

Complement relation.

$$[\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j]$$

1.1092 Relation: [b,bi,di,e,f,fi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1093 Relation: [b,bi,di,e,f,fi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1094 Relation: [b,bi,di,e,f,fi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1095 Relation: [b,bi,di,e,f,m]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.1096 Relation: [b,bi,di,e,f,m,mi]

Complement relation.

$$\begin{cases} \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.1097 Relation: [b,bi,di,e,f,m,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + 2\ell_j - 2\ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.1098 Relation: [b,bi,di,e,f,m,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j \\ \emptyset & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.1099 Relation: [b,bi,di,e,f,m,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = \ell_j + 1 \\ \emptyset & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.1100 Relation: [b,bi,di,e,f,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\ \emptyset & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1101 Relation: [b,bi,di,e,f,m,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j \\ \emptyset & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1102 Relation: [b,bi,di,e,f,m,mi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + 2\ell_j - 2\ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.1103 Relation: [b,bi,di,e,f,m,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 2\ell_i + 3, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.1104 Relation: [b,bi,di,e,f,m,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.1105 Relation: [b,bi,di,e,f,m,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll} \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \neq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \end{array} \right.$$

1.1106 Relation: [b,bi,di,e,f,m,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i = \ell_j + 1 \\ \emptyset & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.1107 Relation: [b,bi,di,e,f,m,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.1108 Relation: [b,bi,di,e,f,m,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.1109 Relation: [b,bi,di,e,f,m,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \\ \emptyset & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.1110 Relation: [b,bi,di,e,f,m,mi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - 2\ell_i + 3, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.1111 Relation: [b,bi,di,e,f,m,mi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.1112 Relation: [b,bi,di,e,f,m,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + 2\ell_j - 2\ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.1113 Relation: [b,bi,di,e,f,m,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.1114 Relation: [b,bi,di,e,f,m,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - 2\ell_i + 3, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.1115 Relation: [b,bi,di,e,f,m,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1116 Relation: [b,bi,di,e,f,m,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1117 Relation: [b,bi,di,e,f,m,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + 2\ell_j - 2\ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.1118 Relation: [b,bi,di,e,f,m,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1119 Relation: [b,bi,di,e,f,m,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1120 Relation: [b,bi,di,e,f,m,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \neq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - 2\ell_i + 3, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + 2\ell_j - 2, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.1121 Relation: [b,bi,di,e,f,m,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - 2\ell_i + 2, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.1122 Relation: [b,bi,di,e,f,m,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - 2\ell_i + 3, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.1123 Relation: [b,bi,di,e,f,m,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.1124 Relation: [b,bi,di,e,f,m,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.1125 Relation: [b,bi,di,e,f,m,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 2, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.1126 Relation: [b,bi,di,e,f,m,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.1127 Relation: [b,bi,di,e,f,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

Complement relation.

$$\begin{cases} [\overline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\overline{\sigma_j}, \underline{\sigma_j} + \ell_j - \ell_i - 1] \cup [\overline{\sigma_j} + \ell_j - \ell_i + 1, \underline{\sigma_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{\sigma_j} - 1, \underline{\sigma_j} + \ell_j - 2] & \text{if } \ell_i = 1 \\ [\overline{\sigma_j} - \ell_i, \underline{\sigma_j}] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i + 1] \cup [\overline{\sigma_j}, \underline{\sigma_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\overline{\sigma_j} + \ell_j - \ell_i, \underline{\sigma_j} + \ell_j - \ell_i] \cup [\overline{\sigma_j}, \underline{\sigma_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\overline{\sigma_j} + 2\ell_j - 2\ell_i + 1, \underline{\sigma_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

Complement relation.

$$\begin{cases} [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\underline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + \ell_i - 2] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

Complement relation.

$$\begin{cases} [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + 1, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i} - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

Complement relation.

$$\begin{cases} [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{cases}$$

1.1133 Relation: [b,bi,di,e,f,mi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 2\ell_j - 2\ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_i - 2] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.1134 Relation: [b,bi,di,e,f,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.1135 Relation: [b,bi,di,e,f,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i \neq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.1136 Relation: [b,bi,di,e,f,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \neq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \end{array} \right.$$

1.1137 Relation: [b,bi,di,e,f,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.1138 Relation: [b,bi,di,e,f,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.1139 Relation: [b,bi,di,e,f,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1140 Relation: [b,bi,di,e,f,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.1141 Relation: [b,bi,di,e,f,mi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.1142 Relation: [b,bi,di,e,f,mi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

Complement relation.

Complement relation.

Complement relation.

Complement relation.

Complement relation.

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1.1153 Relation: [b,bi,di,e,f,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.1154 Relation: [b,bi,di,e,f,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1155 Relation: [b,bi,di,e,f,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.1156 Relation: [b,bi,di,e,f,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.1157 Relation: [b,bi,di,e,f,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1158 Relation: [b,bi,di,e,f,fi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1159 Relation: [b,bi,di,e,fi,m]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1160 Relation: [b,bi,di,e,fi,m,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1161 Relation: [b,bi,di,e,fi,m,mi,o]

Complement relation.

$$\begin{cases} \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \neq \ell_j \end{cases}$$

1.1162 Relation: [b,bi,di,e,fi,m,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ \emptyset & \text{if } \ell_i = \ell_j \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1163 Relation: [b,bi,di,e,fi,m,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ \emptyset & \text{if } \ell_i = \ell_j \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1164 Relation: [b,bi,di,e,fi,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ \emptyset & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.1165 Relation: [b,bi,di,e,fi,m,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ \emptyset & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.1166 Relation: [b,bi,di,e,fi,m,mi,o,s]

Complement relation.

$$\begin{cases} \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1167 Relation: [b,bi,di,e,fi,m,mi,o,s,si]

Complement relation.

$$\begin{cases} \emptyset & \text{if } \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_j > 1 \end{cases}$$

1.1168 Relation: [b,bi,di,e,fi,m,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\ \emptyset & \text{if } \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.1169 Relation: [b,bi,di,e,fi,m,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1170 Relation: [b,bi,di,e,fi,m,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1171 Relation: [b,bi,di,e,fi,m,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ \emptyset & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.1172 Relation: [b,bi,di,e,fi,m,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ \emptyset & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.1173 Relation: [b,bi,di,e,fi,m,mi,s]

Complement relation.

$$\begin{cases} \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1174 Relation: [b,bi,di,e,fi,m,mi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ \emptyset & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1175 Relation: [b,bi,di,e,fi,m,mi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\ \emptyset & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.1176 Relation: [b,bi,di,e,fi,m,o]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \end{cases}$$

1.1177 Relation: [b,bi,di,e,fi,m,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.1178 Relation: [b,bi,di,e,fi,m,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1179 Relation: [b,bi,di,e,fi,m,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.1180 Relation: [b,bi,di,e,fi,m,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.1181 Relation: [b,bi,di,e,fi,m,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1182 Relation: [b,bi,di,e,fi,m,o,s,si]

Complement relation.

$$[\overline{o_j} + 1, \underline{o_j} + \ell_j]$$

1.1183 Relation: [b,bi,di,e,fi,m,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.1184 Relation: [b,bi,di,e,fi,m,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.1185 Relation: [b,bi,di,e,fi,m,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.1186 Relation: [b,bi,di,e,fi,m,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.1187 Relation: [b,bi,di,e,fi,m,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.1188 Relation: [b,bi,di,e,fi,m,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.1189 Relation: [b,bi,di,e,fi,m,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.1190 Relation: [b,bi,di,e,fi,m,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.1191 Relation: [b,bi,di,e,fi,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - 1, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1192 Relation: [b,bi,di,e,fi,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \neq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.1193 Relation: [b,bi,di,e,fi,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1194 Relation: [b,bi,di,e,fi,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1195 Relation: [b,bi,di,e,fi,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.1196 Relation: [b,bi,di,e,fi,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.1197 Relation: [b,bi,di,e,fi,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1198 Relation: [b,bi,di,e,fi,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_j > 1 \end{cases}$$

1.1199 Relation: [b,bi,di,e,fi,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.1200 Relation: [b,bi,di,e,fi,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1201 Relation: [b,bi,di,e,fi,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1202 Relation: [b,bi,di,e,fi,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.1203 Relation: [b,bi,di,e,fi,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.1204 Relation: [b,bi,di,e,fi,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1205 Relation: [b,bi,di,e,fi,mi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1206 Relation: [b,bi,di,e,fi,mi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.1207 Relation: [b,bi,di,e,fi,o]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.1208 Relation: [b,bi,di,e,fi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1209 Relation: [b,bi,di,e,fi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1210 Relation: [b,bi,di,e,fi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.1211 Relation: [b,bi,di,e,fi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.1212 Relation: [b,bi,di,e,fi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1213 Relation: [b,bi,di,e,fi,o,s,si]

Complement relation.

$$[\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j]$$

1.1214 Relation: [b,bi,di,e,fi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.1215 Relation: [b,bi,di,e,fi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1216 Relation: [b,bi,di,e,fi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1217 Relation: [b,bi,di,e,fi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.1218 Relation: [b,bi,di,e,fi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.1219 Relation: [b,bi,di,e,fi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1220 Relation: [b,bi,di,e,fi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1221 Relation: [b,bi,di,e,fi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.1222 Relation: [b,bi,di,e,m]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.1223 Relation: [b,bi,di,e,m,mi]

Complement relation.

$$\begin{cases} \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.1224 Relation: [b,bi,di,e,m,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + 2\ell_j - 2\ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.1225 Relation: [b,bi,di,e,m,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ \emptyset & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.1226 Relation: [b,bi,di,e,m,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ \emptyset & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.1227 Relation: [b,bi,di,e,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ \emptyset & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1228 Relation: [b,bi,di,e,m,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ \emptyset & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1229 Relation: [b,bi,di,e,m,mi,o,s]

Complement relation.

$$\begin{cases} \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.1230 Relation: [b,bi,di,e,m,mi,o,s,si]

Complement relation.

$$\begin{cases} \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1231 Relation: [b,bi,di,e,m,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1232 Relation: [b,bi,di,e,m,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_j + \ell_i - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.1233 Relation: [b,bi,di,e,m,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_j + \ell_i - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.1234 Relation: [b,bi,di,e,m,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.1235 Relation: [b,bi,di,e,m,mi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \end{array} \right.$$

1.1236 Relation: [b,bi,di,e,m,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll} \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 2\ell_i + 3, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.1237 Relation: [b,bi,di,e,m,mi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} - 2\ell_i + 3, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.1238 Relation: [b,bi,di,e,m,mi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.1239 Relation: [b,bi,di,e,m,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + 2\ell_j - 2\ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.1240 Relation: [b,bi,di,e,m,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.1241 Relation: [b,bi,di,e,m,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - 2\ell_i + 3, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.1242 Relation: [b,bi,di,e,m,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1243 Relation: [b,bi,di,e,m,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1244 Relation: [b,bi,di,e,m,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.1245 Relation: [b,bi,di,e,m,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1246 Relation: [b,bi,di,e,m,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1247 Relation: [b,bi,di,e,m,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - 2\ell_i + 3, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_j + \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.1248 Relation: [b,bi,di,e,m,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 2\ell_i + 3, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_j + \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.1249 Relation: [b,bi,di,e,m,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.1250 Relation: [b,bi,di,e,m,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.1251 Relation: [b,bi,di,e,m,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.1252 Relation: [b,bi,di,e,m,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.1253 Relation: [b,bi,di,e,m,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.1254 Relation: [b,bi,di,e,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_j + \ell_i - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.1255 Relation: [b,bi,di,e,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_j + \ell_i - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 2\ell_j - 2\ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.1256 Relation: [b,bi,di,e,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.1257 Relation: [b,bi,di,e,mi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.1258 Relation: [b,bi,di,e,mi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.1259 Relation: [b,bi,di,e,mi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.1260 Relation: [b,bi,di,e,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_j + \ell_i - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.1261 Relation: [b,bi,di,e,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{cases}$$

1.1262 Relation: [b,bi,di,e,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.1263 Relation: [b,bi,di,e,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_j + \ell_i - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.1264 Relation: [b,bi,di,e,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_j + \ell_i - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.1265 Relation: [b,bi,di,e,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1266 Relation: [b,bi,di,e,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \end{cases}$$

1.1267 Relation: [b,bi,di,e,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_j + \ell_i - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.1268 Relation: [b,bi,di,e,mi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.1269 Relation: [b,bi,di,e,mi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.1270 Relation: [b,bi,di,e,o]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.1276 Relation: [b,bi,di,e,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i \leq \underline{\ell_j} \wedge \ell_i > 1 \\ [\overline{o_j} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i \leq \underline{\ell_j} + 1 \wedge \min(\ell_i, \underline{\ell_j}) = 1 \\ [\overline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i > \underline{\ell_j} \wedge \underline{\ell_j} > 1 \\ [\overline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i} + 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > \underline{\ell_j} + 1 \wedge \underline{\ell_j} = 1 \end{cases}$$

1.1277 **Relation:** [b,bi,di,e,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.1278 Relation: [b,bi,di,e,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\underline{\overline{o_j}} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i = \ell_j \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j}] \cup [\underline{\overline{o_j}} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i} + 1] \cup [\underline{\overline{o_j}}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}}, \underline{o_j}] \cup [\underline{\overline{o_j}} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.1279 **Relation:** [b,bi,di,e,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\underline{\overline{o_j}} + 1, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} < \underline{\ell_j} \wedge \underline{\ell_i} > 1 \\ [\underline{\overline{o_j}} - 1, \underline{o_j} - 1] \cup [\underline{\overline{o_j}} + 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} = 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} + 1] & \text{if } \underline{\ell_i} = \underline{\ell_j} + 1 \wedge \underline{\ell_j} = 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i} + 1] \cup [\underline{\overline{o_j}}, \underline{o_j} + 1] & \text{if } \underline{\ell_i} > \underline{\ell_j} + 1 \wedge \underline{\ell_j} = 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}}, \underline{o_j}] \cup [\underline{\overline{o_j}} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} > \underline{\ell_j} + 1 \wedge \underline{\ell_j} > 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_j} + \underline{\ell_i} - 1] \cup [\underline{\overline{o_j}} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} \geq \underline{\ell_j} \wedge \underline{\ell_i} \leq \underline{\ell_j} + 1 \wedge \underline{\ell_i} > 1 \wedge \underline{\ell_j} > 1 \end{array} \right.$$

1.1280 Relation: [b,bi,di,e,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.1281 Relation: [b,bi,di,e,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.1282 Relation: [b,bi,di,e,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.1283 Relation: [b,bi,di,e,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.1284 Relation: [b,bi,di,e,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1285 Relation: [b,bi,di,f]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.1286 Relation: [b,bi,di,f,fi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1287 Relation: [b,bi,di,f,fi,m]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1288 Relation: [b,bi,di,f,fi,m,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.1289 Relation: [b,bi,di,f,fi,m,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.1290 Relation: [b,bi,di,f,fi,m,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \geq \ell_j - 1 \end{cases}$$

1.1291 Relation: [b,bi,di,f,fi,m,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\ \emptyset & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.1292 Relation: [b,bi,di,f,fi,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i = \ell_j \\ \emptyset & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \end{cases}$$

1.1293 Relation: [b,bi,di,f,fi,m,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i = \ell_j \\ \emptyset & \text{if } \ell_i > \ell_j \end{cases}$$

1.1294 Relation: [b,bi,di,f,fi,m,mi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.1295 Relation: [b,bi,di,f,fi,m,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ \emptyset & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.1296 Relation: [b,bi,di,f,fi,m,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ \emptyset & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.1297 Relation: [b,bi,di,f,fi,m,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.1298 Relation: [b,bi,di,f,fi,m,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_j + \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.1299 Relation: [b,bi,di,f,fi,m,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ \emptyset & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.1300 Relation: [b,bi,di,f,fi,m,mi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ \emptyset & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.1301 Relation: [b,bi,di,f,fi,m,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.1302 Relation: [b,bi,di,f,fi,m,mi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ \emptyset & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.1303 Relation: [b,bi,di,f,fi,m,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ \emptyset & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.1304 Relation: [b,bi,di,f,fi,m,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.1305 Relation: [b,bi,di,f,fi,m,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \end{cases}$$

1.1306 Relation: [b,bi,di,f,fi,m,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.1307 Relation: [b,bi,di,f,fi,m,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \end{cases}$$

1.1308 Relation: [b,bi,di,f,fi,m,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1309 Relation: [b,bi,di,f,fi,m,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.1310 Relation: [b,bi,di,f,fi,m,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + 2\ell_j - 2\ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1311 Relation: [b,bi,di,f,fi,m,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1312 Relation: [b,bi,di,f,fi,m,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1313 Relation: [b,bi,di,f,fi,m,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_j + \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + 2\ell_j - 2, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.1314 Relation: [b,bi,di,f,fi,m,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + 2\ell_j - 2\ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_j + \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1315 Relation: [b,bi,di,f,fi,m,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1316 Relation: [b,bi,di,f,fi,m,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + 2\ell_j - 2, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.1317 Relation: [b,bi,di,f,fi,m,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.1318 Relation: [b,bi,di,f,fi,m,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.1319 Relation: [b,bi,di,f,fi,mi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.1320 Relation: [b,bi,di,f,fi,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.1321 Relation: [b,bi,di,f,fi,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \end{cases}$$

1.1322 Relation: [b,bi,di,f,fi,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} - \ell_j + \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.1323 Relation: [b,bi,di,f,fi,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} - \ell_j + \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.1324 Relation: [b,bi,di,f,fi,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1325 Relation: [b,bi,di,f,fi,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} - \ell_j + \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.1326 Relation: [b,bi,di,f,fi,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} - \ell_j + \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 2\ell_j - 2\ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.1327 Relation: [b,bi,di,f,fi,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.1328 Relation: [b,bi,di,f,fi,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.1329 Relation: [b,bi,di,f,fi,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_j + \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.1330 Relation: [b,bi,di,f,fi,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_j + \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.1331 Relation: [b,bi,di,f,fi,mi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \end{array} \right.$$

1.1332 Relation: [b,bi,di,f,fi,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - 1, \underline{o_j} - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.1333 Relation: [b,bi,di,f,fi,mi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.1334 Relation: [b,bi,di,f,fi,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.1335 Relation: [b,bi,di,f,fi,o]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.1336 Relation: [b,bi,di,f,fi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.1337 Relation: [b,bi,di,f,fi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.1338 Relation: [b,bi,di,f,fi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \end{cases}$$

1.1339 Relation: [b,bi,di,f,fi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.1340 Relation: [b,bi,di,f,fi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.1341 Relation: [b,bi,di,f,fi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 2\ell_j - 2\ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1342 **Relation:** [b,bi,di,f,fi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.1343 Relation: [b,bi,di,f,fi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i} - 1] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i < \underline{\ell_j} - 1 \\ [\overline{o_j} - 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \underline{\ell_j} = 1 \\ [\overline{o_j} - \underline{\ell_i}, \underline{o_j}] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i \leq \underline{\ell_j} \wedge \ell_i \geq \underline{\ell_j} - 1 \wedge \underline{\ell_j} > 1 \\ [\overline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \underline{\ell_j} = 1 \\ [\overline{o_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i} - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i > \underline{\ell_j} \wedge \underline{\ell_j} > 1 \end{cases}$$

1.1344 Relation: [b,bi,di,f,fi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_j + \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.1345 **Relation:** [b,bi,di,f,fi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_j + \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1346 Relation: [b,bi,di,f,fi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \end{cases}$$

1.1347 Relation: [b,bi,di,f,fi,s]

Complement relation.

$$\begin{cases} [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i} - 1] \cup [\underline{o_j} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} < \underline{\ell_j} - 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} = \underline{\ell_j} \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\underline{o_j} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} = \underline{\ell_j} - 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i} - 1] \cup [\underline{o_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} > \underline{\ell_j} \end{cases}$$

1.1348 Relation: [b,bi,di,f,fi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1349 Relation: [b,bi,di,f,fi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1350 Relation: [b,bi,di,f,m]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.1351 Relation: [b,bi,di,f,m,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.1352 Relation: [b,bi,di,f,m,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.1353 Relation: [b,bi,di,f,m,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.1354 Relation: [b,bi,di,f,m,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\ \emptyset & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.1355 Relation: [b,bi,di,f,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\ \emptyset & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.1356 Relation: [b,bi,di,f,m,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.1357 Relation: [b,bi,di,f,m,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.1358 Relation: [b,bi,di,f,m,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\ \emptyset & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 2\ell_i + 3, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{cases}$$

1.1359 Relation: [b,bi,di,f,m,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.1360 Relation: [b,bi,di,f,m,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.1361 Relation: [b,bi,di,f,m,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.1362 Relation: [b,bi,di,f,m,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \neq \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.1363 Relation: [b,bi,di,f,m,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.1364 Relation: [b,bi,di,f,m,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.1365 Relation: [b,bi,di,f,m,mi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\ \emptyset & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 2\ell_i + 3, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{cases}$$

1.1366 Relation: [b,bi,di,f,m,mi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.1367 Relation: [b,bi,di,f,m,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.1368 Relation: [b,bi,di,f,m,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.1369 Relation: [b,bi,di,f,m,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.1370 Relation: [b,bi,di,f,m,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.1371 Relation: [b,bi,di,f,m,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1372 Relation: [b,bi,di,f,m,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.1373 Relation: [b,bi,di,f,m,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + 2\ell_j - 2\ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1374 Relation: [b,bi,di,f,m,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1375 **Relation:** [b,bi,di,f,m,oi]

Complement relation.

$$\begin{cases} [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\underline{o_j} - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + 2\ell_j - 2, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.1376 Relation: [b,bi,di,f,m,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} + 2\ell_j - \ell_i - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.1377 **Relation:** [b,bi,di,f,m,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + 2\ell_j - 2\ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - 2\ell_i + 3, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.1378 Relation: [b,bi,di,f,m,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1379 Relation: [b,bi,di,f,m,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{\overline{o}}_j + 1, \underline{o}_j + \ell_j - \ell_i - 1] \cup [\underline{\overline{o}}_j + \ell_j, \underline{o}_j + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{\overline{o}}_j - \ell_i + 1, \underline{o}_j - 1] \cup [\underline{\overline{o}}_j + 1, \underline{o}_j + \ell_j - \ell_i - 1] \cup [\underline{\overline{o}}_j + \ell_j - \ell_i + 1, \underline{o}_j + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{\overline{o}}_j + \ell_j, \underline{o}_j + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{\overline{o}}_j - \ell_i + 1, \underline{o}_j - 1] \cup [\underline{\overline{o}}_j + \ell_j - \ell_i + 1, \underline{o}_j + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{\overline{o}}_j - \ell_i + 1, \underline{o}_j + \ell_j - \ell_i] \cup [\underline{\overline{o}}_j, \underline{o}_j + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\underline{\overline{o}}_j - \ell_i + 1, \underline{o}_j + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.1380 Relation: [b,bi,di,f,m,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 2, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.1381 Relation: [b,bi,di,f,m,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.1382 Relation: [b,bi,di,f,mi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.1383 Relation: [b,bi,di,f,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.1384 Relation: [b,bi,di,f,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.1385 **Relation:** [b,bi,di,f,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j - 1 \\ [\underline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.1386 **Relation:** [b,bi,di,f,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j - 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] & \text{if } \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.1387 **Relation:** [b,bi,di,f,mi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.1388 Relation: [b,bi,di,f,mi,o,s]

Complement relation.

$$\begin{cases} [\underline{\sigma_j} - 1, \underline{\sigma_j} - 1] \cup [\underline{\sigma_j} + 1, \underline{\sigma_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\underline{\sigma_j} + 1, \underline{\sigma_j} + \ell_j - \ell_i - 1] \cup [\underline{\sigma_j} + \ell_j - \ell_i + 1, \underline{\sigma_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\underline{\sigma_j} + \ell_j - \ell_i + 1, \underline{\sigma_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i + 1] \cup [\underline{\sigma_j}, \underline{\sigma_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\underline{\sigma_j} + \ell_j - \ell_i, \underline{\sigma_j} + \ell_j - \ell_i] \cup [\underline{\sigma_j}, \underline{\sigma_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\underline{\sigma_j} + \ell_j - \ell_i, \underline{\sigma_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_j + 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.1389 **Relation:** [b,bi,di,f,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{\overline{o_j}} - 1, \underline{o_j} - 1] \cup [\underline{\overline{o_j}} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{\overline{o_j}} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{\overline{o_j}} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{\overline{o_j}} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{\overline{o_j}} - 1, \underline{o_j} - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{\overline{o_j}} - \ell_i, \underline{o_j} - \ell_i + 1] & \text{if } \ell_j = 1 \\ [\underline{\overline{o_j}} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{\overline{o_j}} + 2\ell_j - 2\ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{\overline{o_j}} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{\overline{o_j}} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{\overline{o_j}} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.1390 Relation: [b,bi,di,f,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.1391 Relation: [b,bi,di,f,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.1392 Relation: [b,bi,di,f,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.1393 Relation: [b,bi,di,f,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \neq \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \end{cases}$$

1.1394 Relation: [b,bi,di,f,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.1395 Relation: [b,bi,di,f,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.1396 Relation: [b,bi,di,f,mi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.1397 Relation: [b,bi,di,f,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.1398 Relation: [b,bi,di,f,o]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.1399 Relation: [b,bi,di,f,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.1405 Relation: [b,bi,di,f,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.1406 Relation: [b,bi,di,f,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.1407 Relation: [b,bi,di,f,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.1408 Relation: [b,bi,di,f,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \end{array} \right.$$

1.1409 Relation: [b,bi,di,f,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.1410 Relation: [b,bi,di,f,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.1411 Relation: [b,bi,di,f,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1412 Relation: [b,bi,di,f,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1413 Relation: [b,bi,di,fi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1414 Relation: [b,bi,di,fi,m]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1415 Relation: [b,bi,di,fi,m,mi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1416 Relation: [b,bi,di,fi,m,mi,o]

Complement relation.

$$[\overline{o_j}, \underline{o_j} + \ell_j - 1]$$

1.1417 Relation: [b,bi,di,fi,m,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.1418 Relation: [b,bi,di,fi,m,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.1419 Relation: [b,bi,di,fi,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i = \ell_j \\ \emptyset & \text{if } \ell_i > \ell_j \end{cases}$$

1.1420 Relation: [b,bi,di,fi,m,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \\ \emptyset & \text{if } \ell_i > \ell_j \end{cases}$$

1.1421 Relation: [b,bi,di,fi,m,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.1422 Relation: [b,bi,di,fi,m,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\ \emptyset & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \neq \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1423 Relation: [b,bi,di,fi,m,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \\ \emptyset & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1424 Relation: [b,bi,di,fi,m,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1425 Relation: [b,bi,di,fi,m,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1426 Relation: [b,bi,di,fi,m,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i = \ell_j \\ \emptyset & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1427 Relation: [b,bi,di,fi,m,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \\ \emptyset & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1428 Relation: [b,bi,di,fi,m,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1429 Relation: [b,bi,di,fi,m,mi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\ \emptyset & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1430 Relation: [b,bi,di,fi,m,mi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \\ \emptyset & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1431 Relation: [b,bi,di,fi,m,o]

Complement relation.

$$[\overline{o_j}, \underline{o_j} + \ell_j]$$

1.1432 Relation: [b,bi,di,fi,m,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.1433 Relation: [b,bi,di,fi,m,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.1434 Relation: [b,bi,di,fi,m,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.1435 Relation: [b,bi,di,fi,m,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1436 Relation: [b,bi,di,fi,m,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.1437 Relation: [b,bi,di,fi,m,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \end{cases}$$

1.1438 Relation: [b,bi,di,fi,m,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1439 Relation: [b,bi,di,fi,m,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1440 Relation: [b,bi,di,fi,m,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1441 Relation: [b,bi,di,fi,m,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.1442 Relation: [b,bi,di,fi,m,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1443 Relation: [b,bi,di,fi,m,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1444 Relation: [b,bi,di,fi,m,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.1445 Relation: [b,bi,di,fi,m,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1446 Relation: [b,bi,di,fi,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1447 Relation: [b,bi,di,fi,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > 1 \end{cases}$$

1.1448 Relation: [b,bi,di,fi,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.1449 Relation: [b,bi,di,fi,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.1450 Relation: [b,bi,di,fi,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1451 Relation: [b,bi,di,fi,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1452 Relation: [b,bi,di,fi,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.1453 Relation: [b,bi,di,fi,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \neq \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1454 Relation: [b,bi,di,fi,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1455 Relation: [b,bi,di,fi,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1456 Relation: [b,bi,di,fi,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1457 Relation: [b,bi,di,fi,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1458 Relation: [b,bi,di,fi,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1459 Relation: [b,bi,di,fi,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1460 Relation: [b,bi,di,fi,mi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1461 Relation: [b,bi,di,fi,mi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1462 Relation: [b,bi,di,fi,o]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > 1 \end{cases}$$

1.1463 Relation: [b,bi,di,fi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.1464 Relation: [b,bi,di,fi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.1465 Relation: [b,bi,di,fi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.1466 Relation: [b,bi,di,fi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1467 Relation: [b,bi,di,fi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.1468 Relation: [b,bi,di,fi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ \{[\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j]\} & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \end{cases}$$

1.1469 Relation: [b,bi,di,fi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ \{[\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j]\} & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1470 Relation: [b,bi,di,fi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ \{[\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j]\} & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ \{[\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1]\} & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ \{[\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}]\} \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1471 Relation: [b,bi,di,fi,oi,s]

Complement relation.

$$\begin{cases} \{[\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j]\} & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ \{[\overline{o_j} - \ell_i, \underline{o_j}]\} \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ \{[\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1]\} & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ \{[\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}]\} \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1472 Relation: [b,bi,di,fi,oi,s,si]

Complement relation.

$$\begin{cases} \{[\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j]\} & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ \{[\overline{o_j} - \ell_i, \underline{o_j}]\} \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ \{[\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j]\} & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ \{[\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j]\} & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.1473 Relation: [b,bi,di,fi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ \{[\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j]\} & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1474 Relation: [b,bi,di,fi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1475 Relation: [b,bi,di,fi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1476 Relation: [b,bi,di,fi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1477 Relation: [b,bi,di,m]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.1478 Relation: [b,bi,di,m,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.1479 Relation: [b,bi,di,m,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.1480 Relation: [b,bi,di,m,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.1481 Relation: [b,bi,di,m,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.1482 Relation: [b,bi,di,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.1483 Relation: [b,bi,di,m,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1484 Relation: [b,bi,di,m,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.1485 Relation: [b,bi,di,m,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1486 Relation: [b,bi,di,m,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] & \text{if } \ell_j = 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1487 Relation: [b,bi,di,m,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.1488 Relation: [b,bi,di,m,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.1489 Relation: [b,bi,di,m,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.1490 Relation: [b,bi,di,m,mi,oi,si]

Complement relation.

$$[\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i]$$

1.1491 Relation: [b,bi,di,m,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.1492 Relation: [b,bi,di,m,mi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - 2\ell_i + 3, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.1493 Relation: [b,bi,di,m,mi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1494 Relation: [b,bi,di,m,o]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.1495 Relation: [b,bi,di,m,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.1496 Relation: [b,bi,di,m,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.1497 Relation: [b,bi,di,m,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.1498 Relation: [b,bi,di,m,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1499 Relation: [b,bi,di,m,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.1500 Relation: [b,bi,di,m,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1501 Relation: [b,bi,di,m,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1502 Relation: [b,bi,di,m,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.1503 Relation: [b,bi,di,m,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.1504 Relation: [b,bi,di,m,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.1505 Relation: [b,bi,di,m,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > 1 \end{cases}$$

1.1506 Relation: [b,bi,di,m,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.1507 Relation: [b,bi,di,m,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.1508 Relation: [b,bi,di,m,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1509 Relation: [b,bi,di,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.1510 Relation: [b,bi,di,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.1511 Relation: [b,bi,di,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.1512 Relation: [b,bi,di,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\underline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\underline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.1513 **Relation:** [b,bi,di,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.1514 **Relation:** [b,bi,di,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1515 **Relation:** [b,bi,di,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.1516 Relation: [b,bi,di,mi,o,s,si]

Complement relation.

$$\begin{cases} [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] & \text{if } \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1517 Relation: [b,bi,di,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{\underline{o_j}} - \ell_i] \cup [\overline{\underline{o_j}}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1518 Relation: [b,bi,di,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.1519 Relation: [b,bi,di,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.1520 Relation: [b,bi,di,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.1521 Relation: [b,bi,di,mi,oi,si]

Complement relation.

$$[\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i]$$

1.1522 Relation: [b,bi,di,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.1523 Relation: [b,bi,di,mi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.1524 Relation: [b,bi,di,mi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1525 **Relation:** [b,bi,di,o]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} - 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i} + 1] \cup [\underline{\overline{o_j}}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.1526 Relation: [b,bi,di,o,oi]

Complement relation.

$$\begin{cases} [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j} - 1, \underline{o_j}] \cup [\underline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\underline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i} + 1] \cup [\underline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.1527 **Relation:** [b,bi,di,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + 1, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} < \underline{\ell_j} \wedge \underline{\ell_i} > 1 \\ [\underline{\overline{o_j}} - 1, \underline{o_j} - 1] \cup [\underline{\overline{o_j}} + 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} = 1 \wedge \underline{\ell_j} > 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} + 1] & \text{if } \underline{\ell_i} \leq \underline{\ell_j} + 1 \wedge \underline{\ell_j} = 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i} + 1] \cup [\underline{\overline{o_j}}, \underline{o_j} + 1] & \text{if } \underline{\ell_i} > \underline{\ell_j} + 1 \wedge \underline{\ell_j} = 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}}, \underline{o_j}] \cup [\underline{\overline{o_j}} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} > \underline{\ell_j} + 1 \wedge \underline{\ell_j} > 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j}] \cup [\underline{\overline{o_j}} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} \geq \underline{\ell_j} \wedge \underline{\ell_i} \leq \underline{\ell_j} + 1 \wedge \underline{\ell_i} > 1 \wedge \underline{\ell_j} > 1 \end{array} \right.$$

1.1528 Relation: [b,bi,di,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.1529 Relation: [b,bi,di,o,oi,si]

Complement relation.

$$\begin{cases} [\underline{\sigma_j} - 1, \underline{\sigma_j} + \ell_j] & \text{if } \ell_i = 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\underline{\sigma_j}, \underline{\sigma_j} + \ell_j - \ell_i] \cup [\underline{\sigma_j} + \ell_j, \underline{\sigma_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i + 1] \cup [\underline{\sigma_j} + 1, \underline{\sigma_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\underline{\sigma_j} + \ell_j - \ell_i, \underline{\sigma_j} + \ell_j - \ell_i] \cup [\underline{\sigma_j} + \ell_j, \underline{\sigma_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1535 Relation: [b,bi,di,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.1536 Relation: [b,bi,di,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > 1 \end{cases}$$

1.1537 Relation: [b,bi,di,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.1538 Relation: [b,bi,di,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1539 Relation: [b,bi,di,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1540 Relation: [b,bi,e]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \end{cases}$$

1.1541 Relation: [b,bi,e,f]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1542 Relation: [b,bi,e,f,fi]

Complement relation.

$$[\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j]$$

1.1543 Relation: [b,bi,e,f,fi,m]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_j > 1 \end{cases}$$

1.1544 Relation: [b,bi,e,f,fi,m,mi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.1545 Relation: [b,bi,e,f,fi,m,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.1546 Relation: [b,bi,e,f,fi,m,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j \\ \emptyset & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1547 Relation: [b,bi,e,f,fi,m,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\ \emptyset & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1548 Relation: [b,bi,e,f,fi,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \\ \emptyset & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.1549 Relation: [b,bi,e,f,fi,m,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \\ \emptyset & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.1550 Relation: [b,bi,e,f,fi,m,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \end{cases}$$

1.1551 Relation: [b,bi,e,f,fi,m,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\ \emptyset & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 2, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.1552 Relation: [b,bi,e,f,fi,m,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ \emptyset & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.1553 Relation: [b,bi,e,f,fi,m,mi,oi]

Complement relation.

$$\begin{cases} \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \neq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.1554 Relation: [b,bi,e,f,fi,m,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1555 Relation: [b,bi,e,f,fi,m,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ \emptyset & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 2, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.1556 Relation: [b,bi,e,f,fi,m,mi,oi,si]

Complement relation.

$$\begin{cases} \emptyset & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.1557 Relation: [b,bi,e,f,fi,m,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.1558 Relation: [b,bi,e,f,fi,m,mi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\ \emptyset & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 2, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.1559 Relation: [b,bi,e,f,fi,m,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.1560 Relation: [b,bi,e,f,fi,m,o]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.1561 Relation: [b,bi,e,f,fi,m,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.1562 Relation: [b,bi,e,f,fi,m,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 2, \underline{o_j} + \ell_j] & \text{if } \ell_j = 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.1563 Relation: [b,bi,e,f,fi,m,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.1564 Relation: [b,bi,e,f,fi,m,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.1565 Relation: [b,bi,e,f,fi,m,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \end{cases}$$

1.1566 Relation: [b,bi,e,f,fi,m,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.1567 Relation: [b,bi,e,f,fi,m,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.1568 Relation: [b,bi,e,f,fi,m,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1569 Relation: [b,bi,e,f,fi,m,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.1575 Relation: [b,bi,e,f,fi,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > 1 \end{cases}$$

1.1576 Relation: [b,bi,e,f,fi,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.1577 Relation: [b,bi,e,f,fi,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.1578 Relation: [b,bi,e,f,fi,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1579 Relation: [b,bi,e,f,fi,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.1580 Relation: [b,bi,e,f,fi,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.1581 **Relation:** [b,bi,e,f,fi,mi,o,s]

Complement relation.

$$\begin{cases} [\underline{\overline{o_j}} - 1, \underline{o_j} - 1] \cup [\underline{\overline{o_j}} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{\overline{o_j}} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{\overline{o_j}} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{\overline{o_j}} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{\overline{o_j}} - 1, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{\overline{o_j}} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{\overline{o_j}} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \end{cases}$$

1.1582 **Relation:** [b,bi,e,f,fi,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} - \ell_i + 2, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.1583 **Relation:** [b,bi,e,f,fi,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \underline{\ell}_i, \underline{o_j} - \underline{\ell}_i] \cup [\overline{o_j}, \underline{o_j} + \underline{\ell}_j - \underline{\ell}_i - 1] \cup [\overline{o_j} + \underline{\ell}_j - \underline{\ell}_i + 1, \underline{o_j} + \underline{\ell}_j - 1] & \text{if } \underline{\ell}_i < \underline{\ell}_j \wedge \underline{\ell}_i > 1 \\ [\overline{o_j} - \underline{\ell}_i, \underline{o_j} + \underline{\ell}_j - \underline{\ell}_i - 1] & \text{if } \underline{\ell}_i \leq \underline{\ell}_j + 1 \wedge \min(\underline{\ell}_i, \underline{\ell}_j) = 1 \\ [\overline{o_j} - \underline{\ell}_i, \underline{o_j} - \underline{\ell}_i] \cup [\overline{o_j} + \underline{\ell}_j - \underline{\ell}_i + 1, \underline{o_j} - 1] & \text{if } \underline{\ell}_i > \underline{\ell}_j + 1 \wedge \underline{\ell}_j = 1 \\ [\overline{o_j} - \underline{\ell}_i, \underline{o_j} - \underline{\ell}_i] \cup [\overline{o_j} + \underline{\ell}_j - \underline{\ell}_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{\ell}_j - 1] & \text{if } \underline{\ell}_i > \underline{\ell}_j + 1 \wedge \underline{\ell}_j > 1 \\ [\overline{o_j} - \underline{\ell}_i, \underline{o_j} - \underline{\ell}_i] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{\ell}_j - 1] & \text{if } \underline{\ell}_i \geq \underline{\ell}_j \wedge \underline{\ell}_i \leq \underline{\ell}_j + 1 \wedge \underline{\ell}_i > 1 \wedge \underline{\ell}_j > 1 \end{array} \right.$$

1.1584 Relation: [b,bi,e,f,fi,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, o_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1585 **Relation:** [b,bi,e,f,fi,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1586 Relation: [b,bi,e,f,fi,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\underline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i = \ell_j + 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.1605 Relation: [b,bi,e,f,fi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.1606 Relation: [b,bi,e,f,m]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1607 Relation: [b,bi,e,f,m,mi]

Complement relation.

$$\begin{cases} \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1608 Relation: [b,bi,e,f,m,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1609 Relation: [b,bi,e,f,m,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j \\ \emptyset & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1610 Relation: [b,bi,e,f,m,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\ \emptyset & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1611 Relation: [b,bi,e,f,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\ \emptyset & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1612 Relation: [b,bi,e,f,m,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j \\ \emptyset & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1613 Relation: [b,bi,e,f,m,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1614 Relation: [b,bi,e,f,m,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1615 Relation: [b,bi,e,f,m,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.1616 Relation: [b,bi,e,f,m,mi,oi]

Complement relation.

$$\begin{cases} \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \neq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \end{cases}$$

1.1617 Relation: [b,bi,e,f,m,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1618 Relation: [b,bi,e,f,m,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \end{cases}$$

1.1619 Relation: [b,bi,e,f,m,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.1620 Relation: [b,bi,e,f,m,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1621 Relation: [b,bi,e,f,m,mi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.1622 Relation: [b,bi,e,f,m,mi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.1623 Relation: [b,bi,e,f,m,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1624 Relation: [b,bi,e,f,m,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1625 Relation: [b,bi,e,f,m,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1626 Relation: [b,bi,e,f,m,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1627 Relation: [b,bi,e,f,m,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1628 Relation: [b,bi,e,f,m,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1629 Relation: [b,bi,e,f,m,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1630 **Relation:** [b,bi,e,f,m,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1631 Relation: [b,bi,e,f,m,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \neq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1632 **Relation:** [b,bi,e,f,m,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.1633 **Relation:** [b,bi,e,f,m,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \end{cases}$$

1.1634 Relation: [b,bi,e,f,m,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.1635 Relation: [b,bi,e,f,m,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1636 Relation: [b,bi,e,f,m,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.1637 Relation: [b,bi,e,f,m,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.1638 Relation: [b,bi,e,f,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1639 Relation: [b,bi,e,f,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 2\ell_j - 2\ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.1640 Relation: [b,bi,e,f,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \underline{\ell_i}] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1641 Relation: [b,bi,e,f,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \underline{\ell_i}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1642 Relation: [b,bi,e,f,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \underline{\ell_i}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1643 Relation: [b,bi,e,f,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \underline{\ell_i}] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 2] & \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1644 Relation: [b,bi,e,f,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1645 Relation: [b,bi,e,f,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.1646 Relation: [b,bi,e,f,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 2] & \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1647 Relation: [b,bi,e,f,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \neq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \end{cases}$$

1.1648 Relation: [b,bi,e,f,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1649 Relation: [b,bi,e,f,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i \geq \ell_j - 1 \end{cases}$$

1.1650 Relation: [b,bi,e,f,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.1651 Relation: [b,bi,e,f,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.1652 Relation: [b,bi,e,f,mi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.1653 Relation: [b,bi,e,f,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 2] & \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.1654 Relation: [b,bi,e,f,o]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.1655 Relation: [b,bi,e,f,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.1662 Relation: [b,bi,e,f,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \neq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1663 Relation: [b,bi,e,f,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1664 Relation: [b,bi,e,f,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \end{cases}$$

1.1665 Relation: [b,bi,e,f,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.1666 Relation: [b,bi,e,f,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1667 Relation: [b,bi,e,f,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 2, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.1668 Relation: [b,bi,e,f,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.1669 Relation: [b,bi,e,fi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.1670 Relation: [b,bi,e,fi,m]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.1671 Relation: [b,bi,e,fi,m,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.1672 Relation: [b,bi,e,fi,m,mi,o]

Complement relation.

$$\begin{cases} \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.1673 Relation: [b,bi,e,fi,m,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ \emptyset & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1674 Relation: [b,bi,e,fi,m,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ \emptyset & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1675 Relation: [b,bi,e,fi,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \\ \emptyset & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.1676 Relation: [b,bi,e,fi,m,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \\ \emptyset & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.1677 Relation: [b,bi,e,fi,m,mi,o,s]

Complement relation.

$$\begin{cases} \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1678 Relation: [b,bi,e,fi,m,mi,o,s,si]

Complement relation.

$$\begin{cases} \emptyset & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.1679 Relation: [b,bi,e,fi,m,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\ \emptyset & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.1680 Relation: [b,bi,e,fi,m,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 2, \underline{o_j}] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1681 Relation: [b,bi,e,fi,m,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 2, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.1682 Relation: [b,bi,e,fi,m,mi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ \emptyset & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.1683 Relation: [b,bi,e,fi,m,mi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ \emptyset & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.1684 Relation: [b,bi,e,fi,m,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll} \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 2, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.1685 Relation: [b,bi,e,fi,m,mi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.1686 Relation: [b,bi,e,fi,m,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\ \emptyset & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.1687 Relation: [b,bi,e,fi,m,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \neq \ell_j + 1 \end{cases}$$

1.1688 Relation: [b,bi,e,fi,m,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{cases}$$

1.1689 Relation: [b,bi,e,fi,m,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 2, \underline{o_j} + \ell_j] & \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1690 Relation: [b,bi,e,fi,m,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.1691 Relation: [b,bi,e,fi,m,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.1692 Relation: [b,bi,e,fi,m,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

Complement relation.

Complement relation.

Complement relation.

Complement relation.

Complement relation.

Complement relation.

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1.1699 Relation: [b,bi,e,fi,m,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 2, \underline{o_j} + \ell_j] & \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1700 Relation: [b,bi,e,fi,m,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.1701 Relation: [b,bi,e,fi,m,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.1702 Relation: [b,bi,e,fi,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - 1, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.1703 Relation: [b,bi,e,fi,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.1704 Relation: [b,bi,e,fi,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1705 Relation: [b,bi,e,fi,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1706 Relation: [b,bi,e,fi,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.1707 Relation: [b,bi,e,fi,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.1708 Relation: [b,bi,e,fi,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} - \ell_i + 2, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.1709 Relation: [b,bi,e,fi,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.1710 Relation: [b,bi,e,fi,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.1711 Relation: [b,bi,e,fi,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1712 Relation: [b,bi,e,fi,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1713 Relation: [b,bi,e,fi,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.1714 Relation: [b,bi,e,fi,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.1715 Relation: [b,bi,e,fi,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1716 Relation: [b,bi,e,fi,mi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.1717 Relation: [b,bi,e,fi,mi,si]

Complement relation.

$$\begin{cases} [\underline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.1718 Relation: [b,bi,e,fi,o]

Complement relation.

$$\begin{cases} [\underline{o_j} - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \neq \ell_j + 1 \end{cases}$$

1.1719 Relation: [b,bi,e,fi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{\sigma_j} - \underline{\ell_i}, \underline{\sigma_j} - \underline{\ell_i}] \cup [\underline{\sigma_j}, \underline{\sigma_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\underline{\sigma_j} + \underline{\ell_j}, \underline{\sigma_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} < \underline{\ell_j} \wedge \underline{\ell_i} > 1 \\ [\underline{\sigma_j} - 1, \underline{\sigma_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} = 1 \wedge \underline{\ell_j} > 1 \\ [\underline{\sigma_j} - \underline{\ell_i}, \underline{\sigma_j} - \underline{\ell_i}] \cup [\underline{\sigma_j} + \underline{\ell_j}, \underline{\sigma_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} = \underline{\ell_j} \\ [\underline{\sigma_j} - \underline{\ell_i}, \underline{\sigma_j} - \underline{\ell_i}] \cup [\underline{\sigma_j} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{\sigma_j} + 1] & \text{if } \underline{\ell_i} > 1 \wedge \underline{\ell_j} = 1 \\ [\underline{\sigma_j} - \underline{\ell_i}, \underline{\sigma_j} - \underline{\ell_i}] \cup [\underline{\sigma_j} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{\sigma_j}] \cup [\underline{\sigma_j} + \underline{\ell_j}, \underline{\sigma_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} > \underline{\ell_j} \wedge \underline{\ell_j} > 1 \end{array} \right.$$

1.1720 **Relation:** [b,bi,e,fi,o,oi,s]

Complement relation.

$$\begin{cases} [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j} + 1, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\underline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} < \underline{\ell_j} \wedge \underline{\ell_i} > 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} = \underline{\ell_j} \wedge \underline{\ell_i} > 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j} - \underline{\ell_i} + 2, \underline{o_j} + \underline{\ell_j}] & \text{if } \min(\underline{\ell_i}, \underline{\ell_j}) = 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j}] \cup [\underline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} > \underline{\ell_j} \wedge \underline{\ell_j} > 1 \end{cases}$$

1.1721 Relation: [b,bi,e,fi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + 1, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j} - 1] \cup [\underline{\overline{o_j}} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i > \ell_j + 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.1722 **Relation:** [b,bi,e,fi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i < \underline{\ell_j} \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i = 1 \wedge \underline{\ell_j} > 1 \\ [\overline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i > \underline{\ell_j} + 1 \\ [\overline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i \geq \underline{\ell_j} \wedge \ell_i \leq \underline{\ell_j} + 1 \end{cases}$$

1.1723 **Relation:** [b,bi,e,fi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1724 **Relation:** [b,bi,e,fi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.1725 **Relation:** [b,bi,e,fi,o,si]

Complement relation.

$$\begin{cases} [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} < \underline{\ell_j} \wedge \underline{\ell_i} > 1 \\ [\underline{\overline{o_j}} - 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} = 1 \wedge \underline{\ell_j} > 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j} - 1] \cup [\underline{\overline{o_j}} + 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} > \underline{\ell_j} + 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} \geq \underline{\ell_j} \wedge \underline{\ell_i} \leq \underline{\ell_j} + 1 \end{cases}$$

1.1726 Relation: [b,bi,e,fi,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\underline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} < \underline{\ell_j} \wedge \underline{\ell_i} > 1 \\ [\underline{o_j} - 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} = 1 \wedge \underline{\ell_j} > 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\underline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} = \underline{\ell_j} \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j} + 1] & \text{if } \underline{\ell_i} > 1 \wedge \underline{\ell_j} = 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i} - 1] \cup [\underline{o_j} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j}] \cup [\underline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} > \underline{\ell_j} \wedge \underline{\ell_j} > 1 \end{array} \right.$$

1.1727 **Relation:** [b,bi,e,fi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} < \underline{\ell_j} \wedge \underline{\ell_i} > 1 \\ [\overline{o_j} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} = \underline{\ell_j} \wedge \underline{\ell_i} > 1 \\ [\overline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} - \underline{\ell_i} + 2, \underline{o_j} + \underline{\ell_j}] & \text{if } \min(\underline{\ell_i}, \underline{\ell_j}) = 1 \\ [\overline{o_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i} - 1] \cup [\overline{o_j} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j}] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} > \underline{\ell_j} \wedge \underline{\ell_j} > 1 \end{array} \right.$$

1.1728 **Relation:** [b,bi,e,fi,oi,s,si]

Complement relation.

$$\begin{cases} [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\underline{\overline{o_j}} + 1, \underline{\overline{o_j}} + \underline{\ell_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} < \underline{\ell_j} \wedge \underline{\ell_i} > 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{\overline{o_j}} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + 1, \underline{\overline{o_j}} + \underline{\ell_j}] & \text{if } \underline{\ell_i} \leq \underline{\ell_j} + 1 \wedge \min(\underline{\ell_i}, \underline{\ell_j}) = 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{\overline{o_j}} + \underline{\ell_j} - \underline{\ell_i} - 1] \cup [\underline{\overline{o_j}} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{\overline{o_j}} - 1] \cup [\underline{\overline{o_j}} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} > \underline{\ell_j} + 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{\overline{o_j}} + \underline{\ell_j} - \underline{\ell_i} - 1] \cup [\underline{\overline{o_j}} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} \geq \underline{\ell_j} \wedge \underline{\ell_i} \leq \underline{\ell_j} + 1 \wedge \underline{\ell_i} > 1 \wedge \underline{\ell_j} > 1 \end{cases}$$

1.1729 Relation: [b,bi,e,fi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.1730 Relation: [b,bi,e,fi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1731 Relation: [b,bi,e,fi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 2] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.1732 Relation: [b,bi,e,fi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.1733 Relation: [b,bi,e,m]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \end{cases}$$

1.1734 Relation: [b,bi,e,m,mi]

Complement relation.

$$\begin{cases} \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \neq \ell_j \end{cases}$$

1.1735 Relation: [b,bi,e,m,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1736 Relation: [b,bi,e,m,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ \emptyset & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1737 Relation: [b,bi,e,m,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ \emptyset & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1738 Relation: [b,bi,e,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ \emptyset & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1739 Relation: [b,bi,e,m,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ \emptyset & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1740 Relation: [b,bi,e,m,mi,o,s]

Complement relation.

$$\begin{cases} \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1741 Relation: [b,bi,e,m,mi,o,s,si]

Complement relation.

$$\begin{cases} \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1742 Relation: [b,bi,e,m,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1743 Relation: [b,bi,e,m,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1744 Relation: [b,bi,e,m,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1745 Relation: [b,bi,e,m,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.1746 Relation: [b,bi,e,m,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.1747 Relation: [b,bi,e,m,mi,s]

Complement relation.

$$\begin{cases} \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1748 Relation: [b,bi,e,m,mi,s,si]

Complement relation.

$$\begin{cases} \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.1749 Relation: [b,bi,e,m,mi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\ \emptyset & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.1750 Relation: [b,bi,e,m,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1751 Relation: [b,bi,e,m,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.1752 Relation: [b,bi,e,m,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1753 Relation: [b,bi,e,m,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1754 Relation: [b,bi,e,m,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1755 Relation: [b,bi,e,m,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1756 Relation: [b,bi,e,m,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1757 Relation: [b,bi,e,m,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1758 Relation: [b,bi,e,m,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.1759 Relation: [b,bi,e,m,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1760 Relation: [b,bi,e,m,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.1761 Relation: [b,bi,e,m,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.1762 Relation: [b,bi,e,m,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1763 Relation: [b,bi,e,m,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > 1 \end{cases}$$

1.1764 Relation: [b,bi,e,m,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.1765 Relation: [b,bi,e,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \neq \ell_j \end{cases}$$

1.1766 Relation: [b,bi,e,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.1767 **Relation:** [b,bi,e,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.1768 **Relation:** [b,bi,e,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1769 **Relation:** [b,bi,e,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1770 **Relation:** [b,bi,e,mi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j \\ [\underline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.1771 **Relation:** [b,bi,e,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1772 Relation: [b,bi,e,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1773 Relation: [b,bi,e,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1774 Relation: [b,bi,e,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1775 Relation: [b,bi,e,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1776 Relation: [b,bi,e,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.1777 Relation: [b,bi,e,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.1778 Relation: [b,bi,e,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ \{[\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1]\} & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1779 Relation: [b,bi,e,mi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_j = 1 \\ \{[\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1]\} & \text{if } \ell_j > 1 \end{cases}$$

1.1780 Relation: [b,bi,e,mi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_j = 1 \\ \{[\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1]\} & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.1781 Relation: [b,bi,e,o]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.1782 Relation: [b,bi,e,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.1783 Relation: [b,bi,e,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1784 Relation: [b,bi,e,o,oi,s,si]

Complement relation.

$$\begin{cases} [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j} + 1, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\underline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} < \underline{\ell_j} \wedge \underline{\ell_i} > 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} = \underline{\ell_j} \wedge \underline{\ell_i} > 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \min(\underline{\ell_i}, \underline{\ell_j}) = 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\underline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} > \underline{\ell_j} \wedge \underline{\ell_j} > 1 \end{cases}$$

1.1785 Relation: [b,bi,e,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{\sigma_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\sigma_j}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\underline{\sigma_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} < \underline{\ell_j} \wedge \underline{\ell_i} > 1 \\ [\underline{\sigma_j} - 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} = 1 \wedge \underline{\ell_j} > 1 \\ [\underline{\sigma_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\sigma_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} = \underline{\ell_j} \\ [\underline{\sigma_j} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\underline{\sigma_j} + 1, \underline{o_j} + 1] & \text{if } \underline{\ell_i} > 1 \wedge \underline{\ell_j} = 1 \\ [\underline{\sigma_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\sigma_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\underline{\sigma_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} > \underline{\ell_j} \wedge \underline{\ell_j} > 1 \end{array} \right.$$

1.1786 Relation: [b,bi,e,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1787 Relation: [b,bi,e,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1788 **Relation:** [b,bi,e,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j} + 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i = \ell_j \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.1789 **Relation:** [b,bi,e,oi]

Complement relation.

$$\begin{cases} [\underline{\sigma_j} - \underline{\ell_i}, \underline{\sigma_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\overline{\sigma_j} + \underline{\ell_j}, \underline{\sigma_j} + \underline{\ell_j}] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\underline{\sigma_j} - \underline{\ell_i}, \underline{\sigma_j} - 1] \cup [\overline{\sigma_j} + \underline{\ell_j}, \underline{\sigma_j} + \underline{\ell_j}] & \text{if } \ell_i = \ell_j \\ [\underline{\sigma_j} - \underline{\ell_i}, \underline{\sigma_j}] \cup [\overline{\sigma_j} + \underline{\ell_j}, \underline{\sigma_j} + \underline{\ell_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\underline{\sigma_j} - \underline{\ell_i}, \underline{\sigma_j} + \underline{\ell_j}] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.1790 Relation: [b,bi,e,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1791 Relation: [b,bi,e,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.1792 Relation: [b,bi,e,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.1793 Relation: [b,bi,e,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1794 Relation: [b,bi,e,s,si]

Complement relation.

$$[\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j]$$

1.1795 Relation: [b,bi,e,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.1796 Relation: [b,bi,f]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.1797 Relation: [b,bi,f,fi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \end{cases}$$

1.1798 Relation: [b,bi,f,fi,m]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1799 Relation: [b,bi,f,fi,m,mi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \neq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.1800 Relation: [b,bi,f,fi,m,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.1801 Relation: [b,bi,f,fi,m,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1802 Relation: [b,bi,f,fi,m,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\ \emptyset & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.1803 Relation: [b,bi,f,fi,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \\ \emptyset & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \end{cases}$$

1.1804 Relation: [b,bi,f,fi,m,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\ \emptyset & \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.1805 Relation: [b,bi,f,fi,m,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.1806 Relation: [b,bi,f,fi,m,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ \emptyset & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 2, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.1807 Relation: [b,bi,f,fi,m,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ \emptyset & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_j + \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.1808 Relation: [b,bi,f,fi,m,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.1809 Relation: [b,bi,f,fi,m,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_j + \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.1810 Relation: [b,bi,f,fi,m,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ \emptyset & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 2, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.1811 Relation: [b,bi,f,fi,m,mi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} \emptyset & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.1812 Relation: [b,bi,f,fi,m,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.1813 Relation: [b,bi,f,fi,m,mi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ \emptyset & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 2, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.1814 Relation: [b,bi,f,fi,m,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.1815 Relation: [b,bi,f,fi,m,o]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.1816 Relation: [b,bi,f,fi,m,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.1817 Relation: [b,bi,f,fi,m,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.1818 Relation: [b,bi,f,fi,m,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_i - 1, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.1819 Relation: [b,bi,f,fi,m,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_i - 1, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.1820 Relation: [b,bi,f,fi,m,o,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \end{array} \right.$$

1.1821 Relation: [b,bi,f,fi,m,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_j + \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.1822 Relation: [b,bi,f,fi,m,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_j + \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.1823 Relation: [b,bi,f,fi,m,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{cases}$$

1.1824 Relation: [b,bi,f,fi,m,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_j + \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.1825 Relation: [b,bi,f,fi,m,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + 2\ell_j - 2\ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} + 2\ell_j + \ell_i - 3, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 2, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.1831 Relation: [b,bi,f,fi,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.1832 **Relation:** [b,bi,f,fi,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j}] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.1833 **Relation:** [b,bi,f,fi,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j} + 1, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i} - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - 1, \underline{o_j} - \underline{\ell_j} + \underline{\ell_i}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j}, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.1834 **Relation:** [b,bi,f,fi,mi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j} + 1, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i} - 1] & \text{if } \underline{\ell_i} < \underline{\ell_j} - 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j}, \underline{o_j}] & \text{if } \underline{\ell_i} = \underline{\ell_j} \wedge \underline{\ell_i} > 1 \\ [\underline{o_j} - 1, \underline{o_j} - \underline{\ell_j} + \underline{\ell_i}] & \text{if } \underline{\ell_i} \leq \underline{\ell_j} \wedge \underline{\ell_i} \geq \underline{\ell_j} - 1 \wedge \underline{\ell_i} = 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j} - 1] & \text{if } \underline{\ell_i} > \underline{\ell_j} + 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] & \text{if } \underline{\ell_i} \geq \underline{\ell_j} - 1 \wedge \underline{\ell_i} \leq \underline{\ell_j} + 1 \wedge \underline{\ell_i} \neq \underline{\ell_j} \wedge \underline{\ell_i} > 1 \end{array} \right.$$

1.1835 **Relation:** [b,bi,f,fi,mi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.1836 Relation: [b,bi,f,fi,mi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_j + 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.1837 Relation: [b,bi,f,fi,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} - \ell_j + \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_j - 2\ell_i + 3] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} - \ell_i + 2, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.1838 Relation: [b,bi,f,fi,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} - \ell_j + \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.1839 Relation: [b,bi,f,fi,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.1840 Relation: [b,bi,f,fi,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_j + \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{array} \right.$$

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + 2\ell_j - 2\ell_i] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\ [\underline{o_j} - 1, \underline{o_j} - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{array} \right.$$

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\ [\underline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} - \ell_i + 2, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.1851 **Relation:** [b,bi,f,fi,o,s]

Complement relation.

$$\begin{cases} [\underline{\sigma_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{\sigma_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{\sigma_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\underline{\sigma_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\underline{\sigma_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{\sigma_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \\ [\underline{\sigma_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{\sigma_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \end{cases}$$

1.1852 **Relation:** [b,bi,f,fi,o,s,si]

Complement relation.

$$\begin{cases} [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\underline{o_j} - 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} - \ell_j + \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.1853 Relation: [b,bi,f,fi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i} - 1] \cup [\underline{\overline{o_j}} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - 2] \cup [\underline{\overline{o_j}} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j} - 1] \cup [\underline{\overline{o_j}} + 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i > \ell_j + 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} - \underline{\ell_j} + \underline{\ell_i}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.1854 Relation: [b,bi,f,fi,oi]

Complement relation.

$$\begin{cases} [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} + \ell_j - \ell_i - 1] \cup [\underline{\sigma_j} + \ell_j, \underline{\sigma_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\underline{\sigma_j} - 1, \underline{\sigma_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j}] \cup [\underline{\sigma_j} + \ell_j, \underline{\sigma_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} + \ell_j - \ell_i - 1] \cup [\underline{\sigma_j} + \ell_j - \ell_i + 1, \underline{\sigma_j}] \cup [\underline{\sigma_j} + \ell_j, \underline{\sigma_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} + \ell_j - \ell_i - 1] \cup [\underline{\sigma_j} + \ell_j - \ell_i + 1, \underline{\sigma_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.1855 **Relation:** [b,bi,f,fi,oi,s]

Complement relation.

$$\begin{cases} [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\underline{\overline{o_j}} + 1, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i} - 1] \cup [\underline{\overline{o_j}} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} < \underline{\ell_j} - 1 \\ [\underline{\overline{o_j}} - 1, \underline{o_j} + 1] & \text{if } \underline{\ell_i} = 1 \wedge \underline{\ell_j} = 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_j} + \underline{\ell_i}] \cup [\underline{\overline{o_j}} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} \leq \underline{\ell_j} \wedge \underline{\ell_i} \geq \underline{\ell_j} - 1 \wedge \underline{\ell_i} > 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i} - 1] \cup [\underline{\overline{o_j}} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j}] \cup [\underline{\overline{o_j}} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} > \underline{\ell_j} \wedge \underline{\ell_j} > 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} \geq \underline{\ell_j} - 1 \wedge \underline{\ell_i} \neq \underline{\ell_j} \wedge \min(\underline{\ell_i}, \underline{\ell_j}) = 1 \end{cases}$$

1.1856 Relation: [b,bi,f,fi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + 2\ell_j - 2\ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.1857 Relation: [b,bi,f,fi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.1858 Relation: [b,bi,f,fi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.1859 Relation: [b,bi,f,fi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.1860 Relation: [b,bi,f,fi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.1861 Relation: [b,bi,f,m]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.1862 Relation: [b,bi,f,m,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.1863 Relation: [b,bi,f,m,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.1864 Relation: [b,bi,f,m,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.1865 Relation: [b,bi,f,m,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\ \emptyset & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.1866 Relation: [b,bi,f,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i = \ell_j \\ \emptyset & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1867 Relation: [b,bi,f,m,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1868 Relation: [b,bi,f,m,mi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.1869 Relation: [b,bi,f,m,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\ \emptyset & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.1870 Relation: [b,bi,f,m,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.1871 Relation: [b,bi,f,m,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i \geq \ell_j - 1 \end{array} \right.$$

1.1872 Relation: [b,bi,f,m,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.1873 Relation: [b,bi,f,m,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i = \ell_j \\ \emptyset & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.1874 Relation: [b,bi,f,m,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1875 Relation: [b,bi,f,m,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \emptyset & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.1876 Relation: [b,bi,f,m,mi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\ \emptyset & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1877 Relation: [b,bi,f,m,mi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.1878 Relation: [b,bi,f,m,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.1879 Relation: [b,bi,f,m,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1880 Relation: [b,bi,f,m,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.1881 Relation: [b,bi,f,m,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1882 Relation: [b,bi,f,m,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1883 Relation: [b,bi,f,m,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + 2\ell_j - 2\ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1884 Relation: [b,bi,f,m,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + 2\ell_j - 2\ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1885 Relation: [b,bi,f,m,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1886 Relation: [b,bi,f,m,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \end{cases}$$

1.1887 Relation: [b,bi,f,m,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} + 2\ell_j - \ell_i - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.1888 Relation: [b,bi,f,m,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 2\ell_j - 2\ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.1889 Relation: [b,bi,f,m,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1890 Relation: [b,bi,f,m,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 2, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + 2\ell_j - 2\ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.1891 Relation: [b,bi,f,m,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1892 Relation: [b,bi,f,m,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1893 Relation: [b,bi,f,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.1894 Relation: [b,bi,f,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.1895 Relation: [b,bi,f,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.1896 Relation: [b,bi,f,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.1897 Relation: [b,bi,f,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.1898 Relation: [b,bi,f,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.1899 Relation: [b,bi,f,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_j + 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.1900 Relation: [b,bi,f,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 2\ell_j - 2\ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.1901 Relation: [b,bi,f,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.1902 Relation: [b,bi,f,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i \geq \ell_j - 1 \end{cases}$$

1.1903 Relation: [b,bi,f,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.1904 Relation: [b,bi,f,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \end{cases}$$

1.1905 Relation: [b,bi,f,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1906 Relation: [b,bi,f,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_j + 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.1907 Relation: [b,bi,f,mi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.1908 Relation: [b,bi,f,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.1909 Relation: [b,bi,f,o]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.1910 Relation: [b,bi,f,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.1911 Relation: [b,bi,f,o,oi,s]

Complement relation.

$$\begin{cases} [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + 1, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i} - 1] \cup [\underline{\overline{o_j}} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} < \underline{\ell_j} - 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} = \underline{\ell_j} - 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} + 1] & \text{if } \underline{\ell_j} = 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j}] \cup [\underline{\overline{o_j}} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} \geq \underline{\ell_j} \wedge \underline{\ell_i} > 1 \wedge \underline{\ell_j} > 1 \end{cases}$$

1.1912 Relation: [b,bi,f,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j} + 1, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i} - 1] \cup [\underline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} < \underline{\ell_j} - 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} = 1 \wedge \underline{\ell_j} = 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} = \underline{\ell_j} \wedge \underline{\ell_i} > 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} = \underline{\ell_j} - 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} > 1 \wedge \underline{\ell_j} = 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\underline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} > \underline{\ell_j} \wedge \underline{\ell_j} > 1 \end{array} \right.$$

1.1913 **Relation:** [b,bi,f,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i} - 1] \cup [\underline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\underline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - 2] \cup [\underline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.1914 Relation: [b,bi,f,o,s]

Complement relation.

$$\begin{cases} [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.1915 **Relation:** [b,bi,f,o,s,si]

Complement relation.

$$\begin{cases} [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j} + 1, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i} - 1] \cup [\underline{o_j} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i < \ell_j - 1 \\ [\underline{o_j} - 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j} + 2\underline{\ell_j} - 2\underline{\ell_i}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i \leq \underline{\ell_j} \wedge \ell_i \geq \underline{\ell_j} - 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i > \underline{\ell_j} \wedge \ell_j > 1 \end{cases}$$

1.1916 Relation: [b,bi,f,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \underline{\ell}_i, \underline{o_j} - \underline{\ell}_i] \cup [\overline{o_j}, \underline{o_j} + \underline{\ell}_j - \underline{\ell}_i - 1] \cup [\overline{o_j} + \underline{\ell}_j - \underline{\ell}_i + 1, \underline{o_j} + \underline{\ell}_j] & \text{if } \underline{\ell}_i < \underline{\ell}_j \wedge \underline{\ell}_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + 1] & \text{if } \underline{\ell}_i = 1 \wedge \underline{\ell}_j = 1 \\ [\overline{o_j} - \underline{\ell}_i, \underline{o_j} - \underline{\ell}_i] \cup [\overline{o_j}, \underline{o_j} + \underline{\ell}_j] & \text{if } \underline{\ell}_i = \underline{\ell}_j \wedge \underline{\ell}_i > 1 \\ [\overline{o_j} - \underline{\ell}_i, \underline{o_j} - \underline{\ell}_i] \cup [\overline{o_j} + \underline{\ell}_j - \underline{\ell}_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{\ell}_j] & \text{if } \underline{\ell}_i > \underline{\ell}_j \wedge \underline{\ell}_j > 1 \\ [\overline{o_j} - \underline{\ell}_i, \underline{o_j} + \underline{\ell}_j - 2] \cup [\overline{o_j} + \underline{\ell}_j, \underline{o_j} + \underline{\ell}_j] & \text{if } \underline{\ell}_i \neq \underline{\ell}_j \wedge \min(\underline{\ell}_i, \underline{\ell}_j) = 1 \end{cases}$$

1.1917 **Relation:** [b,bi,f,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \end{cases}$$

1.1918 **Relation:** [b,bi,f,oi,s]

Complement relation.

$$\begin{cases} [\underline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j}] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.1919 Relation: [b,bi,f,oi,s,si]

Complement relation.

$$\begin{cases} [\underline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\underline{o_j} - 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j}] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \end{cases}$$

1.1920 Relation: [b,bi,f,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \underline{\ell}_i, \underline{o_j} + \underline{\ell}_j - \underline{\ell}_i - 1] \cup [\overline{o_j} + \underline{\ell}_j, \underline{o_j} + \underline{\ell}_j] & \text{if } \underline{\ell}_i < \underline{\ell}_j - 1 \\ [\overline{o_j} - 1, \underline{o_j} + 1] & \text{if } \underline{\ell}_i = 1 \wedge \underline{\ell}_j = 1 \\ [\overline{o_j} - \underline{\ell}_i, \underline{o_j}] \cup [\overline{o_j} + \underline{\ell}_j, \underline{o_j} + \underline{\ell}_j] & \text{if } \underline{\ell}_i \leq \underline{\ell}_j \wedge \underline{\ell}_i \geq \underline{\ell}_j - 1 \wedge \underline{\ell}_j > 1 \\ [\overline{o_j} - \underline{\ell}_i, \underline{o_j} - 1] \cup [\overline{o_j} + \underline{\ell}_j, \underline{o_j} + \underline{\ell}_j] & \text{if } \underline{\ell}_i > \underline{\ell}_j \end{cases}$$

1.1921 Relation: [b,bi,f,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.1922 Relation: [b,bi,f,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1923 Relation: [b,bi,f,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1924 Relation: [b,bi,fi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1925 Relation: [b,bi,fi,m]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 2, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{cases}$$

1.1926 Relation: [b,bi,fi,m,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{cases}$$

1.1927 Relation: [b,bi,fi,m,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.1928 Relation: [b,bi,fi,m,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1929 Relation: [b,bi,fi,m,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1930 Relation: [b,bi,fi,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i = \ell_j \\ \emptyset & \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.1931 Relation: [b,bi,fi,m,mi,o,oi,si]

Complement relation.

$$\begin{cases} \emptyset & \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.1932 Relation: [b,bi,fi,m,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1933 Relation: [b,bi,fi,m,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\ \emptyset & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.1934 Relation: [b,bi,fi,m,mi,o,si]

Complement relation.

$$\begin{cases} \emptyset & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.1935 Relation: [b,bi,fi,m,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{cases}$$

1.1936 Relation: [b,bi,fi,m,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 2, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.1937 Relation: [b,bi,fi,m,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i = \ell_j \\ \emptyset & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.1938 Relation: [b,bi,fi,m,mi,oi,si]

Complement relation.

$$\begin{cases} \emptyset & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.1939 Relation: [b,bi,fi,m,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 2, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.1940 Relation: [b,bi,fi,m,mi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\ \emptyset & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.1941 Relation: [b,bi,fi,m,mi,si]

Complement relation.

$$\begin{cases} \emptyset & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.1942 Relation: [b,bi,fi,m,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.1943 Relation: [b,bi,fi,m,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.1944 Relation: [b,bi,fi,m,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 2, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.1945 Relation: [b,bi,fi,m,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.1946 Relation: [b,bi,fi,m,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_i - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.1947 Relation: [b,bi,fi,m,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1948 Relation: [b,bi,fi,m,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.1949 Relation: [b,bi,fi,m,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.1950 Relation: [b,bi,fi,m,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{cases}$$

1.1956 Relation: [b,bi,fi,m,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 2] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i + 2, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.1957 Relation: [b,bi,fi,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1958 Relation: [b,bi,fi,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.1959 Relation: [b,bi,fi,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.1960 Relation: [b,bi,fi,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.1961 Relation: [b,bi,fi,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.1962 Relation: [b,bi,fi,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.1963 Relation: [b,bi,fi,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.1964 Relation: [b,bi,fi,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + 2\ell_j - 2\ell_i] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.1965 Relation: [b,bi,fi,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 2\ell_i + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.1966 Relation: [b,bi,fi,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1967 Relation: [b,bi,fi,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1968 Relation: [b,bi,fi,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + 2\ell_j - 2\ell_i] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.1969 Relation: [b,bi,fi,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 2] & \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.1970 Relation: [b,bi,fi,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1971 Relation: [b,bi,fi,mi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.1972 Relation: [b,bi,fi,mi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 2\ell_i + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.1973 Relation: [b,bi,fi,o]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.1974 Relation: [b,bi,fi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\underline{\overline{o_j}} - 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i = 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j}] \cup [\underline{\overline{o_j}} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}}, \underline{o_j}] \cup [\underline{\overline{o_j}} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.1975 **Relation:** [b,bi,fi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} - \ell_i + 2, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.1976 Relation: [b,bi,fi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i < \underline{\ell_j} \wedge \ell_i > 1 \\ [\overline{o_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i = 1 \wedge \underline{\ell_j} = 1 \\ [\overline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i = \underline{\ell_j} \wedge \ell_i > 1 \\ [\overline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i = \underline{\ell_j} + 1 \wedge \underline{\ell_j} > 1 \\ [\overline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i \leq \underline{\ell_j} + 1 \wedge \ell_i \neq \underline{\ell_j} \wedge \min(\ell_i, \underline{\ell_j}) = 1 \\ [\overline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i > \underline{\ell_j} + 1 \end{array} \right.$$

1.1977 Relation: [b,bi,fi,o,oi,si]

Complement relation.

$$\begin{cases} [\underline{o_j} - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j} + \underline{\ell_j} - \ell_i] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \underline{\ell_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.1978 Relation: [b,bi,fi,o,s]

Complement relation.

$$\begin{cases} [\underline{\overline{o}}_j - \underline{\ell}_i, \underline{o}_j - \underline{\ell}_i] \cup [\underline{\overline{o}}_j + 1, \underline{o}_j + \underline{\ell}_j] & \text{if } \underline{\ell}_i < \underline{\ell}_j \\ [\underline{\overline{o}}_j - \underline{\ell}_i, \underline{o}_j + \underline{\ell}_j] & \text{if } \underline{\ell}_i = 1 \wedge \underline{\ell}_j = 1 \\ [\underline{\overline{o}}_j - \underline{\ell}_i, \underline{o}_j - \underline{\ell}_i] \cup [\underline{\overline{o}}_j + \underline{\ell}_j - \underline{\ell}_i + 1, \underline{o}_j + \underline{\ell}_j] & \text{if } \underline{\ell}_i > \underline{\ell}_j + 1 \\ [\underline{\overline{o}}_j - \underline{\ell}_i, \underline{o}_j - \underline{\ell}_i] \cup [\underline{\overline{o}}_j, \underline{o}_j + \underline{\ell}_j] & \text{if } \underline{\ell}_i \geq \underline{\ell}_j \wedge \underline{\ell}_i \leq \underline{\ell}_j + 1 \wedge \underline{\ell}_i > 1 \end{cases}$$

1.1979 Relation: [b,bi,fi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \underline{o_j} + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.1980 Relation: [b,bi,fi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.1981 Relation: [b,bi,fi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1982 Relation: [b,bi,fi,oi,s]

Complement relation.

$$\begin{cases} [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - 1] \cup [\underline{\sigma_j} + 1, \underline{\sigma_j} + \ell_j - \ell_i] \cup [\underline{\sigma_j} + \ell_j, \underline{\sigma_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\underline{\sigma_j} - 1, \underline{\sigma_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j}] \cup [\underline{\sigma_j} + \ell_j, \underline{\sigma_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} + \ell_j - \ell_i - 1] \cup [\underline{\sigma_j} + \ell_j - \ell_i + 1, \underline{\sigma_j}] \cup [\underline{\sigma_j} + \ell_j, \underline{\sigma_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\underline{\sigma_j} - \ell_i + 2, \underline{\sigma_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.1983 **Relation:** [b,bi,fi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\underline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} < \underline{\ell_j} \wedge \underline{\ell_i} > 1 \\ [\underline{o_j} - 1, \underline{o_j} + 1] & \text{if } \underline{\ell_i} = 1 \wedge \underline{\ell_j} = 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j} + 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} \leq \underline{\ell_j} + 1 \wedge \underline{\ell_i} \neq \underline{\ell_j} \wedge \min(\underline{\ell_i}, \underline{\ell_j}) = 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i} - 1] \cup [\underline{o_j} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j} - 1] \cup [\underline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} > \underline{\ell_j} + 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} + 2\underline{\ell_j} - 2\underline{\ell_i}] \cup [\underline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} \geq \underline{\ell_j} \wedge \underline{\ell_i} \leq \underline{\ell_j} + 1 \wedge \underline{\ell_i} > 1 \wedge \underline{\ell_j} > 1 \end{array} \right.$$

1.1984 Relation: [b,bi,fi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \underline{\ell_j} - \ell_i - 1] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i = \underline{\ell_j} + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \underline{\ell_j} - \ell_i] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i \leq \underline{\ell_j} \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \underline{\ell_j} - \ell_i - 1] \cup [\overline{o_j} + \underline{\ell_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i > \underline{\ell_j} + 1 \end{cases}$$

1.1985 Relation: [b,bi,fi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1986 Relation: [b,bi,fi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.1987 Relation: [b,bi,fi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.1988 Relation: [b,bi,m]

Complement relation.

$$[\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j]$$

1.1989 Relation: [b,bi,m,mi]

Complement relation.

$$[\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1]$$

1.1990 Relation: [b,bi,m,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1991 Relation: [b,bi,m,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1992 Relation: [b,bi,m,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.1993 Relation: [b,bi,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1994 Relation: [b,bi,m,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1995 Relation: [b,bi,m,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.1996 Relation: [b,bi,m,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1997 Relation: [b,bi,m,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.1998 Relation: [b,bi,m,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.1999 Relation: [b,bi,m,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.2000 Relation: [b,bi,m,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.2001 Relation: [b,bi,m,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.2002 Relation: [b,bi,m,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.2003 Relation: [b,bi,m,mi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \neq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2004 Relation: [b,bi,m,mi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2005 Relation: [b,bi,m,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.2006 Relation: [b,bi,m,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2007 Relation: [b,bi,m,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2008 Relation: [b,bi,m,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.2009 Relation: [b,bi,m,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.2010 Relation: [b,bi,m,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.2011 Relation: [b,bi,m,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.2012 Relation: [b,bi,m,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.2013 Relation: [b,bi,m,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2014 Relation: [b,bi,m,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2015 Relation: [b,bi,m,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.2016 Relation: [b,bi,m,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.2017 Relation: [b,bi,m,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.2018 Relation: [b,bi,m,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.2019 Relation: [b,bi,m,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.2020 Relation: [b,bi,mi]

Complement relation.

$$[\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1]$$

1.2021 Relation: [b,bi,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2022 Relation: [b,bi,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2023 Relation: [b,bi,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2024 Relation: [b,bi,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2025 Relation: [b,bi,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2026 Relation: [b,bi,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2027 Relation: [b,bi,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2028 Relation: [b,bi,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2029 Relation: [b,bi,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.2030 Relation: [b,bi,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.2031 Relation: [b,bi,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j}] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.2032 Relation: [b,bi,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.2033 Relation: [b,bi,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.2034 Relation: [b,bi,mi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \neq \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2035 Relation: [b,bi,mi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2036 Relation: [b,bi,o]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2037 Relation: [b,bi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2038 Relation: [b,bi,o,oi,s]

Complement relation.

$$\begin{cases} [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j} + 1, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\underline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} < \underline{\ell_j} \wedge \underline{\ell_i} > 1 \\ [\underline{o_j} - 1, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} = 1 \wedge \underline{\ell_j} > 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} + 1] & \text{if } \underline{\ell_j} = 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j}] \cup [\underline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} \geq \underline{\ell_j} \wedge \underline{\ell_i} > 1 \wedge \underline{\ell_j} > 1 \end{cases}$$

1.2039 Relation: [b,bi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j} + 1, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}}, \underline{o_j}] \cup [\underline{\overline{o_j}} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\underline{\overline{o_j}} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\underline{\overline{o_j}} + 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.2040 **Relation:** [b,bi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2041 Relation: [b,bi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, o_j - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, o_j + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2042 **Relation:** [b,bi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \underline{\ell}_i, \underline{o_j} - \underline{\ell}_i] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{\ell}_j] & \text{if } \underline{\ell}_i < \underline{\ell}_j \\ [\overline{o_j} - 1, \underline{o_j} + 1] & \text{if } \underline{\ell}_i = 1 \wedge \underline{\ell}_j = 1 \\ [\overline{o_j} - \underline{\ell}_i, \underline{o_j} - \underline{\ell}_i] \cup [\overline{o_j}, \underline{o_j} + \underline{\ell}_j] & \text{if } \underline{\ell}_i = \underline{\ell}_j \wedge \underline{\ell}_i > 1 \\ [\overline{o_j} - \underline{\ell}_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \underline{\ell}_i > 1 \wedge \underline{\ell}_j = 1 \\ [\overline{o_j} - \underline{\ell}_i, \underline{o_j} - \underline{\ell}_i] \cup [\overline{o_j} + \underline{\ell}_j - \underline{\ell}_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{\ell}_j] & \text{if } \underline{\ell}_i > \underline{\ell}_j \wedge \underline{\ell}_j > 1 \end{array} \right.$$

1.2043 Relation: [b,bi,o,si]

Complement relation.

$$\begin{cases} [\underline{o_j} - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2044 Relation: [b,bi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2045 Relation: [b,bi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2046 Relation: [b,bi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.2047 Relation: [b,bi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.2048 Relation: [b,bi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.2049 Relation: [b,bi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \end{cases}$$

1.2050 Relation: [b,bi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.2051 Relation: [b,d]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \end{cases}$$

1.2052 Relation: [b,d,di]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.2053 Relation: [b,d,di,e]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \end{cases}$$

1.2054 Relation: [b,d,di,e,f]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.2055 Relation: [b,d,di,e,f,fi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2056 Relation: [b,d,di,e,f,fi,m]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2057 Relation: [b,d,di,e,f,fi,m,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.2058 Relation: [b,d,di,e,f,fi,m,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.2059 Relation: [b,d,di,e,f,fi,m,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \end{cases}$$

1.2060 Relation: [b,d,di,e,f,fi,m,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2061 Relation: [b,d,di,e,f,fi,m,mi,o,oi,s,si]

Complement relation.

$$[\overline{o_j} + \ell_j + 1, +\infty[$$

1.2062 Relation: [b,d,di,e,f,fi,m,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.2063 Relation: [b,d,di,e,f,fi,m,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2064 Relation: [b,d,di,e,f,fi,m,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2065 Relation: [b,d,di,e,f,fi,m,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2066 Relation: [b,d,di,e,f,fi,m,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 2, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2067 Relation: [b,d,di,e,f,fi,m,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2068 Relation: [b,d,di,e,f,fi,m,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2069 Relation: [b,d,di,e,f,fi,m,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2070 Relation: [b,d,di,e,f,fi,m,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2071 Relation: [b,d,di,e,f,fi,m,mi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2072 Relation: [b,d,di,e,f,fi,m,mi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2073 Relation: [b,d,di,e,f,fi,m,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2074 Relation: [b,d,di,e,f,fi,m,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2075 Relation: [b,d,di,e,f,fi,m,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2076 Relation: [b,d,di,e,f,fi,m,o,oi,s,si]

Complement relation.

$$[\overline{o_j} + \ell_j, +\infty[$$

1.2077 Relation: [b,d,di,e,f,fi,m,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.2078 Relation: [b,d,di,e,f,fi,m,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2079 Relation: [b,d,di,e,f,fi,m,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.2080 Relation: [b,d,di,e,f,fi,m,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.2081 Relation: [b,d,di,e,f,fi,m,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2082 Relation: [b,d,di,e,f,fi,m,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2083 Relation: [b,d,di,e,f,fi,m,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2084 Relation: [b,d,di,e,f,fi,m,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2085 Relation: [b,d,di,e,f,fi,m,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2086 Relation: [b,d,di,e,f,fi,m,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2087 Relation: [b,d,di,e,f,fi,m,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2088 Relation: [b,d,di,e,f,fi,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2089 Relation: [b,d,di,e,f,fi,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2090 Relation: [b,d,di,e,f,fi,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.2091 Relation: [b,d,di,e,f,fi,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2092 Relation: [b,d,di,e,f,fi,mi,o,oi,s,si]

Complement relation.

$$[\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[$$

1.2093 Relation: [b,d,di,e,f,fi,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.2094 Relation: [b,d,di,e,f,fi,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2095 Relation: [b,d,di,e,f,fi,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2096 Relation: [b,d,di,e,f,fi,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2097 Relation: [b,d,di,e,f,fi,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2098 Relation: [b,d,di,e,f,fi,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2099 Relation: [b,d,di,e,f,fi,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2100 Relation: [b,d,di,e,f,fi,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.2101 Relation: [b,d,di,e,f,fi,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2102 Relation: [b,d,di,e,f,fi,mi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2103 Relation: [b,d,di,e,f,fi,mi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2104 Relation: [b,d,di,e,f,fi,o]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2105 Relation: [b,d,di,e,f,fi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2106 Relation: [b,d,di,e,f,fi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2107 Relation: [b,d,di,e,f,fi,o,oi,s,si]

Complement relation.

$$[\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[$$

1.2108 Relation: [b,d,di,e,f,fi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.2109 Relation: [b,d,di,e,f,fi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2110 Relation: [b,d,di,e,f,fi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2111 Relation: [b,d,di,e,f,fi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.2112 Relation: [b,d,di,e,f,fi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2113 Relation: [b,d,di,e,f,fi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2114 Relation: [b,d,di,e,f,fi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2115 Relation: [b,d,di,e,f,fi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.2116 Relation: [b,d,di,e,f,fi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2117 Relation: [b,d,di,e,f,fi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2118 Relation: [b,d,di,e,f,fi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.2119 Relation: [b,d,di,e,f,m]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.2120 Relation: [b,d,di,e,f,m,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.2121 Relation: [b,d,di,e,f,m,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + 2\ell_j - 2\ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2122 Relation: [b,d,di,e,f,m,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.2123 Relation: [b,d,di,e,f,m,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.2124 Relation: [b,d,di,e,f,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2125 Relation: [b,d,di,e,f,m,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2126 Relation: [b,d,di,e,f,m,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.2127 Relation: [b,d,di,e,f,m,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2128 Relation: [b,d,di,e,f,m,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.2129 Relation: [b,d,di,e,f,m,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.2130 Relation: [b,d,di,e,f,m,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, o_j] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.2131 **Relation:** [b,d,di,e,f,m,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.2132 Relation: [b,d,di,e,f,m,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.2133 Relation: [b,d,di,e,f,m,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.2134 Relation: [b,d,di,e,f,m,mi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{\overline{o_j}} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{\overline{o_j}} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{\overline{o_j}} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \underline{\overline{o_j}} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [\underline{\overline{o_j}} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\underline{\overline{o_j}} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\underline{\overline{o_j}} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{\overline{o_j}} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{\overline{o_j}} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\underline{\overline{o_j}} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{\overline{o_j}} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{\overline{o_j}} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.2135 Relation: [b,d,di,e,f,m,mi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.2136 Relation: [b,d,di,e,f,m,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + 2\ell_j - 2\ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.2137 Relation: [b,d,di,e,f,m,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.2138 Relation: [b,d,di,e,f,m,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - 2\ell_i + 3, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.2139 Relation: [b,d,di,e,f,m,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2140 Relation: [b,d,di,e,f,m,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2141 Relation: [b,d,di,e,f,m,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.2142 Relation: [b,d,di,e,f,m,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2143 Relation: [b,d,di,e,f,m,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2144 Relation: [b,d,di,e,f,m,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 2\ell_i + 3, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.2145 Relation: [b,d,di,e,f,m,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - 2\ell_i + 2, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.2146 Relation: [b,d,di,e,f,m,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.2147 Relation: [b,d,di,e,f,m,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.2148 Relation: [b,d,di,e,f,m,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.2149 Relation: [b,d,di,e,f,m,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.2150 Relation: [b,d,di,e,f,m,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.2151 Relation: [b,d,di,e,f,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_j + \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.2152 Relation: [b,d,di,e,f,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_j + \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 2\ell_j - 2\ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2153 Relation: [b,d,di,e,f,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.2154 Relation: [b,d,di,e,f,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\underline{\sigma_j} - 1, \underline{\sigma_j}] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} + \ell_i - 2] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i + 1] \cup [\underline{\sigma_j}, \underline{\sigma_j}] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\underline{\sigma_j} + \ell_j - \ell_i, \underline{\sigma_j} + \ell_j - \ell_i] \cup [\underline{\sigma_j}, \underline{\sigma_j}] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.2155 **Relation:** [b,d,di,e,f,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \underline{\ell}_i, \underline{o_j} - \underline{\ell}_i] \cup [\overline{o_j} + \underline{\ell}_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \underline{\ell}_i, \underline{o_j} - 1] \cup [\overline{o_j} + \underline{\ell}_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \underline{\ell}_i, \underline{o_j} - \underline{\ell}_i] \cup [\overline{o_j} + \underline{\ell}_j - \underline{\ell}_i, \underline{o_j} + \underline{\ell}_j - \underline{\ell}_i] \cup [\overline{o_j} + \underline{\ell}_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \underline{\ell}_i, \underline{o_j} - \underline{\ell}_i + 1] \cup [\overline{o_j} + \underline{\ell}_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{cases}$$

1.2156 Relation: [b,d,di,e,f,mi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\overline{\sigma_j}, \underline{\sigma_j}] \cup [\overline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\overline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\overline{\sigma_j} + \ell_j - \ell_i, \underline{\sigma_j} + \ell_j - \ell_i] \cup [\overline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i + 1] \cup [\overline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.2157 Relation: [b,d,di,e,f,mi,o,s]

Complement relation.

$$\begin{cases} [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j} - 1, \underline{o_j} + \underline{\ell_j} - 1] \cup [\underline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j} + \underline{\ell_j} - 1] \cup [\underline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_i} - 2] \cup [\underline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i} + 1] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\underline{o_j}, \underline{o_j} + \underline{\ell_j} - 1] \cup [\underline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.2158 Relation: [b,d,di,e,f,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{cases}$$

1.2159 Relation: [b,d,di,e,f,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.2160 Relation: [b,d,di,e,f,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.2161 Relation: [b,d,di,e,f,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.2162 Relation: [b,d,di,e,f,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.2163 Relation: [b,d,di,e,f,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2164 Relation: [b,d,di,e,f,mi,s]

Complement relation.

$$\begin{cases} [\underline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + \ell_i - 2] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.2165 Relation: [b,d,di,e,f,mi,s,si]

Complement relation.

$$\begin{cases} [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\underline{\overline{o_j}} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j} + \underline{\ell_j} - 1] \cup [\underline{\overline{o_j}} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\underline{\overline{o_j}} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i} + 1] \cup [\underline{\overline{o_j}} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + 1, \underline{o_j} + \underline{\ell_j} - 1] \cup [\underline{\overline{o_j}} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\underline{\overline{o_j}} + 1, \underline{o_j} + \underline{\ell_j} - 1] \cup [\underline{\overline{o_j}} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2166 Relation: [b,d,di,e,f,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - \ell_i, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.2167 Relation: [b,d,di,e,f,o]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\underline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} - 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\underline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.2168 **Relation:** [b,d,di,e,f,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{\overline{o}_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{\overline{o}_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\underline{\overline{o}_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\underline{\overline{o}_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\ [\underline{\overline{o}_j} - \ell_i, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{\overline{o}_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{\overline{o}_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\underline{\overline{o}_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\underline{\overline{o}_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{\overline{o}_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \overline{o_j} + \ell_j - \ell_i] \cup [\underline{\overline{o}_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.2169 Relation: [b,d,di,e,f,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, o_j - \ell_i] \cup [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, o_j - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, o_j + \ell_j - \ell_i] \cup [\overline{o_j}, o_j] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.2170 Relation: [b,d,di,e,f,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{cases}$$

1.2171 Relation: [b,d,di,e,f,o,oi,si]

Complement relation.

$$\begin{cases} [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.2172 Relation: [b,d,di,e,f,o,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, o_j + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.2173 Relation: [b,d,di,e,f,o,s,si]

Complement relation.

$$\begin{cases} [\underline{\overline{o_j}} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{\overline{o_j}} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\underline{\overline{o_j}} - \ell_i, \underline{o_j} - 1] \cup [\underline{\overline{o_j}} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\underline{\overline{o_j}} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{\overline{o_j}} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{\overline{o_j}} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\underline{\overline{o_j}} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\underline{\overline{o_j}} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{cases}$$

1.2174 Relation: [b,d,di,e,f,o,si]

Complement relation.

$$\begin{cases} [\overline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\underline{\sigma_j}, \underline{\sigma_j}] \cup [\overline{\sigma_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\overline{\sigma_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\overline{\sigma_j} + \ell_j - \ell_i, \underline{\sigma_j} + \ell_j - \ell_i] \cup [\overline{\sigma_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i + 1] \cup [\overline{\sigma_j} + \ell_j, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.2175 Relation: [b,d,di,e,f,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.2176 Relation: [b,d,di,e,f,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.2177 Relation: [b,d,di,e,f,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.2178 Relation: [b,d,di,e,f,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.2179 Relation: [b,d,di,e,f,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.2180 Relation: [b,d,di,e,f,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.2181 Relation: [b,d,di,e,f,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2182 Relation: [b,d,di,e,fi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2183 Relation: [b,d,di,e,fi,m]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.2184 Relation: [b,d,di,e,fi,m,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2185 Relation: [b,d,di,e,fi,m,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \end{cases}$$

1.2186 Relation: [b,d,di,e,fi,m,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2187 Relation: [b,d,di,e,fi,m,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2188 Relation: [b,d,di,e,fi,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.2189 Relation: [b,d,di,e,fi,m,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.2190 Relation: [b,d,di,e,fi,m,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2191 Relation: [b,d,di,e,fi,m,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \end{cases}$$

1.2192 Relation: [b,d,di,e,fi,m,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2193 Relation: [b,d,di,e,fi,m,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + 2\ell_j - 2\ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.2194 Relation: [b,d,di,e,fi,m,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.2195 Relation: [b,d,di,e,fi,m,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.2196 Relation: [b,d,di,e,fi,m,mi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.2197 Relation: [b,d,di,e,fi,m,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.2198 Relation: [b,d,di,e,fi,m,mi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.2199 Relation: [b,d,di,e,fi,m,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.2200 Relation: [b,d,di,e,fi,m,o]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j}, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \end{array} \right.$$

1.2201 Relation: [b,d,di,e,fi,m,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.2202 Relation: [b,d,di,e,fi,m,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.2203 Relation: [b,d,di,e,fi,m,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.2204 Relation: [b,d,di,e,fi,m,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_j + 2, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.2205 Relation: [b,d,di,e,fi,m,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2206 Relation: [b,d,di,e,fi,m,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \end{cases}$$

1.2207 Relation: [b,d,di,e,fi,m,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.2208 Relation: [b,d,di,e,fi,m,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + 2\ell_j - 2\ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.2209 Relation: [b,d,di,e,fi,m,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.2210 Relation: [b,d,di,e,fi,m,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.2211 Relation: [b,d,di,e,fi,m,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, o_j] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_j + 2, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.2212 Relation: [b,d,di,e,fi,m,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.2213 Relation: [b,d,di,e,fi,m,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.2214 Relation: [b,d,di,e,fi,m,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.2221 Relation: [b,d,di,e,fi,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2222 Relation: [b,d,di,e,fi,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \end{cases}$$

1.2223 Relation: [b,d,di,e,fi,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + 2\ell_j - \ell_i - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.2224 Relation: [b,d,di,e,fi,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + 2\ell_j - 2\ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2225 Relation: [b,d,di,e,fi,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2226 Relation: [b,d,di,e,fi,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.2227 Relation: [b,d,di,e,fi,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + 2\ell_j - 2\ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2228 Relation: [b,d,di,e,fi,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2229 Relation: [b,d,di,e,fi,mi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2230 Relation: [b,d,di,e,fi,mi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2231 Relation: [b,d,di,e,fi,o]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.2232 Relation: [b,d,di,e,fi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.2233 Relation: [b,d,di,e,fi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.2234 Relation: [b,d,di,e,fi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.2235 Relation: [b,d,di,e,fi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.2236 Relation: [b,d,di,e,fi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.2237 Relation: [b,d,di,e,fi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \end{array} \right.$$

1.2238 Relation: [b,d,di,e,fi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.2239 Relation: [b,d,di,e,fi,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.2240 Relation: [b,d,di,e,fi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.2241 Relation: [b,d,di,e,fi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.2242 Relation: [b,d,di,e,fi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.2243 Relation: [b,d,di,e,fi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2244 Relation: [b,d,di,e,fi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.2245 Relation: [b,d,di,e,fi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.2246 Relation: [b,d,di,e,m]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_j + 2, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.2247 Relation: [b,d,di,e,m,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \end{cases}$$

1.2248 Relation: [b,d,di,e,m,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + 2\ell_j - 2\ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.2249 Relation: [b,d,di,e,m,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.2250 Relation: [b,d,di,e,m,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.2251 Relation: [b,d,di,e,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \end{cases}$$

1.2252 Relation: [b,d,di,e,m,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2253 Relation: [b,d,di,e,m,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.2254 Relation: [b,d,di,e,m,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2255 Relation: [b,d,di,e,m,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_j + \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.2256 Relation: [b,d,di,e,m,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_j + \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.2257 Relation: [b,d,di,e,m,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_j + \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.2258 Relation: [b,d,di,e,m,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.2259 Relation: [b,d,di,e,m,mi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \end{array} \right.$$

1.2260 Relation: [b,d,di,e,m,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.2261 **Relation:** [b,d,di,e,m,mi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\ \overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.2262 **Relation:** [b,d,di,e,m,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.2263 **Relation:** [b,d,di,e,m,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} - \ell_j + \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.2264 Relation: [b,d,di,e,m,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\ [\underline{o_j} - 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\underline{o_j}, \underline{o_j} + 1] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\underline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\underline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.2265 Relation: [b,d,di,e,m,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.2266 Relation: [b,d,di,e,m,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.2267 Relation: [b,d,di,e,m,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j}, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.2268 Relation: [b,d,di,e,m,o,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.2269 Relation: [b,d,di,e,m,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.2270 Relation: [b,d,di,e,m,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_j + \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.2271 Relation: [b,d,di,e,m,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_j + \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_j - 2\ell_i + 4, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.2272 **Relation:** [b,d,di,e,m,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_j + \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.2273 **Relation:** [b,d,di,e,m,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.2274 Relation: [b,d,di,e,m,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{\sigma_j}, \underline{o_j}] \cup [\underline{\sigma_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{\sigma_j} - \ell_i + 1, \underline{o_j}] \cup [\underline{\sigma_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{\sigma_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{\sigma_j} - \ell_j + 2, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{\sigma_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{\sigma_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \\ [\underline{\sigma_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{\sigma_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.2275 **Relation:** [b,d,di,e,m,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, o_j - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, o_j + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, o_j - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \overline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_j + 2, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \overline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \overline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - \ell_i, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + \ell_i - 2] \cup [\underline{o_j} + 2, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \end{array} \right.$$

Complement relation.

$$\begin{cases} \overline{[o_j - \ell_i, o_j - \ell_i]} \cup \overline{[o_j, o_j]} \cup \overline{[o_j + \ell_j - \ell_i, o_j + \ell_j - 1]} \cup \overline{[o_j + \ell_j + 1, +\infty[} & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \overline{[o_j - \ell_i, o_j - \ell_i]} \cup \overline{[o_j, o_j + \ell_j - 1]} \cup \overline{[o_j + \ell_j + 1, +\infty[} & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ \overline{[o_j - \ell_i, o_j - \ell_i]} \cup \overline{[o_j + \ell_j - \ell_i, o_j + \ell_j - \ell_i]} \cup \overline{[o_j, o_j + \ell_j - 1]} \cup \overline{[o_j + \ell_j + 1, +\infty[} & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ \overline{[o_j - \ell_i, o_j - \ell_i]} \cup \overline{[o_j + 2\ell_j - 2\ell_i + 1, o_j + \ell_j - 1]} \cup \overline{[o_j + \ell_j + 1, +\infty[} & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\ \overline{[o_j - \ell_i, o_j + 2\ell_j + \ell_i - 4]} \cup \overline{[o_j + \ell_j + 1, +\infty[} & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ \overline{[o_j - \ell_i, o_j - \ell_i + 1]} \cup \overline{[o_j + \ell_j - 1, o_j + \ell_j - 1]} \cup \overline{[o_j + \ell_j + 1, +\infty[} & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.2301 Relation: [b,d,di,e,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.2302 Relation: [b,d,di,e,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.2303 Relation: [b,d,di,e,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_j + \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.2304 Relation: [b,d,di,e,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.2305 Relation: [b,d,di,e,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \overline{o_j} - 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.2306 Relation: [b,d,di,e,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ \overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.2307 Relation: [b,d,di,e,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.2308 Relation: [b,d,di,e,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ \overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.2309 Relation: [b,d,di,f]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ \overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.2310 Relation: [b,d,di,f,fi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ \overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.2311 Relation: [b,d,di,f,fi,m]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2312 Relation: [b,d,di,f,fi,m,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2313 Relation: [b,d,di,f,fi,m,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2314 Relation: [b,d,di,f,fi,m,mi,o,oi]

Complement relation.

$$[\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[$$

1.2315 Relation: [b,d,di,f,fi,m,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.2316 Relation: [b,d,di,f,fi,m,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \end{cases}$$

1.2317 Relation: [b,d,di,f,fi,m,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2318 Relation: [b,d,di,f,fi,m,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.2319 Relation: [b,d,di,f,fi,m,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.2320 Relation: [b,d,di,f,fi,m,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2321 Relation: [b,d,di,f,fi,m,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2322 Relation: [b,d,di,f,fi,m,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2323 Relation: [b,d,di,f,fi,m,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.2324 Relation: [b,d,di,f,fi,m,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2325 Relation: [b,d,di,f,fi,m,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2326 Relation: [b,d,di,f,fi,m,mi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.2327 Relation: [b,d,di,f,fi,m,mi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2328 Relation: [b,d,di,f,fi,m,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j}, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.2329 Relation: [b,d,di,f,fi,m,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_j > 1 \end{cases}$$

1.2330 Relation: [b,d,di,f,fi,m,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j}, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2331 Relation: [b,d,di,f,fi,m,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \neq \ell_j \end{cases}$$

1.2332 Relation: [b,d,di,f,fi,m,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2333 Relation: [b,d,di,f,fi,m,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j}, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.2334 Relation: [b,d,di,f,fi,m,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j}, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2335 Relation: [b,d,di,f,fi,m,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j}, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2336 Relation: [b,d,di,f,fi,m,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2337 Relation: [b,d,di,f,fi,m,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.2338 Relation: [b,d,di,f,fi,m,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.2339 Relation: [b,d,di,f,fi,m,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.2340 Relation: [b,d,di,f,fi,m,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.2341 Relation: [b,d,di,f,fi,m,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.2342 Relation: [b,d,di,f,fi,m,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.2343 Relation: [b,d,di,f,fi,mi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.2344 Relation: [b,d,di,f,fi,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.2345 **Relation:** [b,d,di,f,fi,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \end{cases}$$

1.2346 Relation: [b,d,di,f,fi,mi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.2347 **Relation:** [b,d,di,f,fi,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \end{cases}$$

1.2348 **Relation:** [b,d,di,f,fi,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\underline{\sigma_j} - 1, \underline{\sigma_j}] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\underline{\sigma_j}, \underline{\sigma_j}] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2349 Relation: [b,d,di,f,fi,mi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\underline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.2350 Relation: [b,d,di,f,fi,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.2351 Relation: [b,d,di,f,fi,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.2352 Relation: [b,d,di,f,fi,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.2353 Relation: [b,d,di,f,fi,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.2354 Relation: [b,d,di,f,fi,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.2355 Relation: [b,d,di,f,fi,mi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.2356 **Relation:** [b,d,di,f,fi,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2357 **Relation:** [b,d,di,f,fi,mi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.2358 Relation: [b,d,di,f,fi,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{\sigma_j} - \ell_i, \underline{o_j}] \cup [\underline{\sigma_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\underline{\sigma_j} - 1, \underline{o_j}] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [\underline{\sigma_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\underline{\sigma_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\underline{\sigma_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{\sigma_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.2359 Relation: [b,d,di,f,fi,o]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\underline{o_j} - 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.2360 Relation: [b,d,di,f,fi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - 1, \overline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \overline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \overline{o_j} - \ell_i] \cup [\overline{o_j}, \overline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2361 Relation: [b,d,di,f,fi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, o_j] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.2362 Relation: [b,d,di,f,fi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \neq \ell_j \end{cases}$$

1.2363 Relation: [b,d,di,f,fi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2364 Relation: [b,d,di,f,fi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.2365 Relation: [b,d,di,f,fi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2366 Relation: [b,d,di,f,fi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2367 Relation: [b,d,di,f,fi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2368 Relation: [b,d,di,f,fi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2369 Relation: [b,d,di,f,fi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2370 Relation: [b,d,di,f,fi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2371 Relation: [b,d,di,f,fi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2372 Relation: [b,d,di,f,fi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2373 Relation: [b,d,di,f,fi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2374 Relation: [b,d,di,f,m]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.2375 Relation: [b,d,di,f,m,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2376 Relation: [b,d,di,f,m,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2377 Relation: [b,d,di,f,m,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.2378 Relation: [b,d,di,f,m,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.2379 Relation: [b,d,di,f,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.2380 Relation: [b,d,di,f,m,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2381 Relation: [b,d,di,f,m,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.2382 Relation: [b,d,di,f,m,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2383 Relation: [b,d,di,f,m,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2384 Relation: [b,d,di,f,m,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.2385 Relation: [b,d,di,f,m,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.2386 Relation: [b,d,di,f,m,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \neq \ell_j + 1 \end{cases}$$

1.2387 Relation: [b,d,di,f,m,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2388 Relation: [b,d,di,f,m,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.2389 Relation: [b,d,di,f,m,mi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2390 Relation: [b,d,di,f,m,mi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2391 Relation: [b,d,di,f,m,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.2392 Relation: [b,d,di,f,m,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.2393 Relation: [b,d,di,f,m,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2394 Relation: [b,d,di,f,m,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.2395 Relation: [b,d,di,f,m,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2396 Relation: [b,d,di,f,m,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.2397 Relation: [b,d,di,f,m,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j}, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2398 Relation: [b,d,di,f,m,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j}, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2399 Relation: [b,d,di,f,m,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.2400 Relation: [b,d,di,f,m,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.2401 Relation: [b,d,di,f,m,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.2402 Relation: [b,d,di,f,m,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.2403 Relation: [b,d,di,f,m,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.2404 Relation: [b,d,di,f,m,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.2405 Relation: [b,d,di,f,m,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ \overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2406 Relation: [b,d,di,f,mi]

Complement relation.

$$\begin{cases} [\underline{o_j} - \ell_i, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j}] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2407 Relation: [b,d,di,f,mi,o]

Complement relation.

$$\begin{cases} [\underline{o_j} - \ell_i, o_j - \ell_i] \cup [\underline{o_j}, \underline{o_j}] \cup [o_j + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j}] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \underline{\ell_i}, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2408 Relation: [b,d,di,f,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, o_j - \ell_i] \cup [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, o_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, o_j] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, o_j - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, o_j - \ell_i] \cup [\overline{o_j} + \ell_j - \overline{\ell_i}, o_j + \ell_j - \ell_i] \cup [\overline{o_j}, o_j] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.2409 Relation: [b,d,di,f,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\underline{\sigma_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\underline{\sigma_j} - \ell_i, \underline{o_j}] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{\sigma_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\underline{\sigma_j}, \underline{o_j}] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{\sigma_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{\sigma_j} + \ell_j - \underline{\ell_i}, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{\sigma_j}, \underline{o_j}] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\underline{\sigma_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{\sigma_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2410 Relation: [b,d,di,f,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{\overline{o_j}} - \ell_i + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, o_j - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, o_j + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2411 Relation: [b,d,di,f,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2412 Relation: [b,d,di,f,mi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{\overline{o_j}} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{\overline{o_j}} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{\overline{o_j}} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\underline{\overline{o_j}} - 1, \underline{o_j} - 1] \cup [\underline{\overline{o_j}} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\underline{\overline{o_j}} - \ell_i, \underline{o_j}] \cup [\underline{\overline{o_j}} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{\overline{o_j}} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\underline{\overline{o_j}}, \underline{o_j}] \cup [\underline{\overline{o_j}} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{\overline{o_j}} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{\overline{o_j}} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{\overline{o_j}}, \underline{o_j} + \ell_j - 1] \cup [\underline{\overline{o_j}} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\underline{\overline{o_j}} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{\overline{o_j}} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\underline{\overline{o_j}} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.2413 Relation: [b,d,di,f,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2414 Relation: [b,d,di,f,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.2415 Relation: [b,d,di,f,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.2416 Relation: [b,d,di,f,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.2417 Relation: [b,d,di,f,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \neq \ell_j + 1 \end{cases}$$

1.2418 Relation: [b,d,di,f,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2419 Relation: [b,d,di,f,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.2420 Relation: [b,d,di,f,mi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{cases}$$

1.2421 Relation: [b,d,di,f,mi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2422 Relation: [b,d,di,f,o]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2423 Relation: [b,d,di,f,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.2424 Relation: [b,d,di,f,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.2425 Relation: [b,d,di,f,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.2426 Relation: [b,d,di,f,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.2427 Relation: [b,d,di,f,o,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.2428 Relation: [b,d,di,f,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \underline{\ell_i} + 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2429 Relation: [b,d,di,f,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \underline{\ell_i} + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.2430 Relation: [b,d,di,f,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \underline{\ell_i} + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.2431 Relation: [b,d,di,f,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \underline{\ell_i} + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2432 Relation: [b,d,di,f,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.2433 Relation: [b,d,di,f,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2434 Relation: [b,d,di,f,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.2435 Relation: [b,d,di,f,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2436 Relation: [b,d,di,f,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2437 Relation: [b,d,di,fi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2438 Relation: [b,d,di,fi,m]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.2439 Relation: [b,d,di,fi,m,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2440 Relation: [b,d,di,fi,m,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \end{cases}$$

1.2441 Relation: [b,d,di,fi,m,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.2442 Relation: [b,d,di,fi,m,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.2443 Relation: [b,d,di,fi,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2444 Relation: [b,d,di,fi,m,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2445 Relation: [b,d,di,fi,m,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.2446 Relation: [b,d,di,fi,m,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \neq \ell_j - 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2447 Relation: [b,d,di,fi,m,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2454 Relation: [b,d,di,fi,m,mi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2455 Relation: [b,d,di,fi,m,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \end{cases}$$

1.2456 Relation: [b,d,di,fi,m,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.2457 Relation: [b,d,di,fi,m,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2458 Relation: [b,d,di,fi,m,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i = 1 \end{cases}$$

1.2459 Relation: [b,d,di,fi,m,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2460 Relation: [b,d,di,fi,m,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j}, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.2461 Relation: [b,d,di,fi,m,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \neq \ell_j - 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \end{cases}$$

1.2462 Relation: [b,d,di,fi,m,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2463 Relation: [b,d,di,fi,m,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.2464 Relation: [b,d,di,fi,m,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2465 Relation: [b,d,di,fi,m,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i = 1 \end{cases}$$

1.2466 Relation: [b,d,di,fi,m,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.2467 Relation: [b,d,di,fi,m,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.2468 Relation: [b,d,di,fi,m,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i = 1 \end{array} \right.$$

1.2469 Relation: [b,d,di,fi,m,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.2470 Relation: [b,d,di,fi,mi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.2471 Relation: [b,d,di,fi,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \end{array} \right.$$

1.2472 **Relation:** [b,d,di,fi,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j} + 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.2473 **Relation:** [b,d,di,fi,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.2474 Relation: [b,d,di,fi,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2475 Relation: [b,d,di,fi,mi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{\sigma_j} - 1, \underline{\sigma_j}] \cup [\underline{\sigma_j} + \ell_j - 1, \underline{\sigma_j} + \ell_j - 1] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\underline{\sigma_j}, \underline{\sigma_j}] \cup [\underline{\sigma_j} + \ell_j - \ell_i, \underline{\sigma_j} + \ell_j - \ell_i] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{\sigma_j} - 1, \underline{\sigma_j} + \ell_j - 1] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\underline{\sigma_j}, \underline{\sigma_j} + \ell_j - \ell_i] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.2476 Relation: [b,d,di,fi,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.2477 **Relation:** [b,d,di,fi,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{\overline{o_j}} - 1, \underline{o_j}] \cup [\underline{\overline{o_j}} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\underline{\overline{o_j}} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{\overline{o_j}} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\underline{\overline{o_j}} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \neq \ell_j - 1 \wedge \ell_j > 1 \\ [\underline{\overline{o_j}} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{\overline{o_j}} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\underline{\overline{o_j}} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{\overline{o_j}} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{\overline{o_j}} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.2478 Relation: [b,d,di,fi,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.2479 Relation: [b,d,di,fi,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.2480 Relation: [b,d,di,fi,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.2481 Relation: [b,d,di,fi,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.2482 Relation: [b,d,di,fi,mi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.2483 Relation: [b,d,di,fi,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.2484 Relation: [b,d,di,fi,mi,s,si]

Complement relation.

$$\begin{cases} [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\underline{\overline{o_j}} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - 1] \cup [\underline{\overline{o_j}} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - 1] \cup [\underline{\overline{o_j}} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i} - 1] \cup [\underline{\overline{o_j}} + 1, \underline{o_j} + \underline{\ell_j} - 1] \cup [\underline{\overline{o_j}} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2485 **Relation:** [b,d,di,fi,mi,si]

Complement relation.

$$\begin{cases} [\underline{o_j} - \ell_i, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2486 Relation: [b,d,di,fi,o]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{\sigma_j} - 1, \underline{\sigma_j}] \cup [\underline{\sigma_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\underline{\sigma_j}, \underline{\sigma_j}] \cup [\underline{\sigma_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{\sigma_j} - 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\underline{\sigma_j}, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \end{array} \right.$$

1.2487 Relation: [b,d,di,fi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.2488 Relation: [b,d,di,fi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + \underline{\ell_j}, +\infty[& \text{if } \ell_i < \underline{\ell_j} \wedge \ell_i > 1 \\ [\underline{\overline{o_j}} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}}, \underline{o_j}] \cup [\underline{\overline{o_j}} + \underline{\ell_j}, +\infty[& \text{if } \ell_i \geq \underline{\ell_j} \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + \underline{\ell_j} - 1, +\infty[& \text{if } \ell_i \neq \underline{\ell_j} \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.2489 **Relation:** [b,d,di,fi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2490 Relation: [b,d,di,fi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.2491 Relation: [b,d,di,fi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.2492 Relation: [b,d,di,fi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \neq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \end{array} \right.$$

1.2493 Relation: [b,d,di,fi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.2494 Relation: [b,d,di,fi,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.2495 Relation: [b,d,di,fi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.2496 Relation: [b,d,di,fi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2497 Relation: [b,d,di,fi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2498 Relation: [b,d,di,fi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2499 Relation: [b,d,di,fi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2500 Relation: [b,d,di,fi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2501 Relation: [b,d,di,m]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.2502 Relation: [b,d,di,m,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.2503 Relation: [b,d,di,m,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.2504 Relation: [b,d,di,m,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.2505 Relation: [b,d,di,m,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.2506 Relation: [b,d,di,m,mi,o,oi,s,si]

Complement relation.

$$[\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[$$

1.2507 Relation: [b,d,di,m,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.2508 Relation: [b,d,di,m,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.2509 Relation: [b,d,di,m,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2510 Relation: [b,d,di,m,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2511 Relation: [b,d,di,m,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.2512 Relation: [b,d,di,m,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.2513 Relation: [b,d,di,m,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2514 Relation: [b,d,di,m,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \end{cases}$$

1.2515 Relation: [b,d,di,m,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2516 Relation: [b,d,di,m,mi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2517 Relation: [b,d,di,m,mi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.2518 Relation: [b,d,di,m,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.2519 Relation: [b,d,di,m,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.2520 Relation: [b,d,di,m,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.2521 Relation: [b,d,di,m,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > 1 \end{array} \right.$$

1.2522 Relation: [b,d,di,m,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.2523 Relation: [b,d,di,m,o,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.2524 Relation: [b,d,di,m,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.2525 Relation: [b,d,di,m,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2526 Relation: [b,d,di,m,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.2527 Relation: [b,d,di,m,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2528 Relation: [b,d,di,m,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.2529 Relation: [b,d,di,m,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \end{cases}$$

1.2530 Relation: [b,d,di,m,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.2542 Relation: [b,d,di,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.2543 Relation: [b,d,di,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.2544 Relation: [b,d,di,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.2545 Relation: [b,d,di,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \end{cases}$$

1.2546 Relation: [b,d,di,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.2547 Relation: [b,d,di,mi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2548 Relation: [b,d,di,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \underline{\ell}_i, \underline{o_j}] \cup [\overline{o_j} + \underline{\ell}_j - \underline{\ell}_i, \underline{o_j} + \underline{\ell}_j - 1] \cup [\overline{o_j} + \underline{\ell}_j + 1, +\infty[& \text{if } \underline{\ell}_i < \underline{\ell}_j - 1 \\ [\overline{o_j} - \underline{\ell}_i, \underline{o_j} + \underline{\ell}_j - 1] \cup [\overline{o_j} + \underline{\ell}_j + 1, +\infty[& \text{if } \underline{\ell}_i \leq \underline{\ell}_j \wedge \underline{\ell}_i \geq \underline{\ell}_j - 1 \\ [\overline{o_j} - \underline{\ell}_i, \underline{o_j} + \underline{\ell}_j - \underline{\ell}_i] \cup [\overline{o_j} + 2, +\infty[& \text{if } \underline{\ell}_i > 1 \wedge \underline{\ell}_j = 1 \\ [\overline{o_j} - \underline{\ell}_i, \underline{o_j} + \underline{\ell}_j - \underline{\ell}_i] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{\ell}_j - 1] \cup [\overline{o_j} + \underline{\ell}_j + 1, +\infty[& \text{if } \underline{\ell}_i > \underline{\ell}_j \wedge \underline{\ell}_j > 1 \end{array} \right.$$

1.2549 **Relation:** [b,d,di,o]

Complement relation.

$$\begin{cases} [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\underline{\sigma_j}, \underline{\sigma_j}] \cup [\underline{\sigma_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\underline{\sigma_j} - 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\underline{\sigma_j}, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\underline{\sigma_j} + \ell_j - \ell_i, \underline{\sigma_j} + \ell_j - \ell_i] \cup [\underline{\sigma_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\underline{\sigma_j} - \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\underline{\sigma_j} - \ell_i, \sigma_j - \ell_i + 1] \cup [\underline{\sigma_j} + \ell_j - 1, +\infty[& \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.2550 Relation: [b,d,di,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j} + 1] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\underline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.2551 Relation: [b,d,di,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} - 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\underline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.2552 Relation: [b,d,di,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\underline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, o_j + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2553 **Relation:** [b,d,di,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - 1, \underline{o_j}] \cup [\underline{o_j} + \underline{\ell_j} - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\underline{o_j} + \underline{\ell_j}, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j}, \underline{o_j} + 1] \cup [\underline{o_j} + \underline{\ell_j}, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i} + 1] \cup [\underline{o_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\underline{o_j} + \underline{\ell_j}, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.2554 Relation: [b,d,di,o,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, o_j + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.2555 Relation: [b,d,di,o,s,si]

Complement relation.

$[\overline{o_j} - 1, +\infty[$	if $\ell_i = 1 \wedge \ell_j = 1$
$[\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[$	if $\ell_i = \ell_j - 1 \wedge \ell_i > 1$
$[\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[$	if $\ell_i \leq \ell_j \wedge \ell_i \neq \ell_j - 1 \wedge \ell_j > 1$
$[\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[$	if $\ell_i > \ell_j \wedge \ell_j > 1$
$[\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + 1, +\infty[$	if $\ell_i > \ell_j + 1 \wedge \ell_j = 1$
$[\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[$	if $\ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1$

1.2556 Relation: [b,d,di,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.2557 Relation: [b,d,di,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{\overline{o_j}} - \ell_i, \underline{o_j}] \cup [\underline{\overline{o_j}} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{\overline{o_j}} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{\overline{o_j}} - \ell_i, \underline{o_j} + 1] \cup [\underline{\overline{o_j}} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{\overline{o_j}} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{\overline{o_j}}, \underline{o_j}] \cup [\underline{\overline{o_j}} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\underline{\overline{o_j}} - \ell_i, \underline{o_j}] \cup [\underline{\overline{o_j}} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\underline{\overline{o_j}} - \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\underline{\overline{o_j}} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\underline{\overline{o_j}} + \ell_j - 1, +\infty[& \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.2558 Relation: [b,d,di,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.2559 Relation: [b,d,di,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.2560 Relation: [b,d,di,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \end{array} \right.$$

1.2561 Relation: [b,d,di,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.2562 Relation: [b,d,di,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.2563 Relation: [b,d,di,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.2564 Relation: [b,d,e]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \end{cases}$$

1.2565 Relation: [b,d,e,f]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2566 Relation: [b,d,e,f,fi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.2567 Relation: [b,d,e,f,fi,m]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2568 Relation: [b,d,e,f,fi,m,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2569 Relation: [b,d,e,f,fi,m,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2570 Relation: [b,d,e,f,fi,m,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2571 Relation: [b,d,e,f,fi,m,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2572 Relation: [b,d,e,f,fi,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.2573 Relation: [b,d,e,f,fi,m,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.2574 Relation: [b,d,e,f,fi,m,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \end{cases}$$

1.2575 Relation: [b,d,e,f,fi,m,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2576 Relation: [b,d,e,f,fi,m,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2577 Relation: [b,d,e,f,fi,m,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 2, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 2, \underline{o_j}] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.2578 Relation: [b,d,e,f,fi,m,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.2579 Relation: [b,d,e,f,fi,m,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.2580 Relation: [b,d,e,f,fi,m,mi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.2581 Relation: [b,d,e,f,fi,m,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.2582 Relation: [b,d,e,f,fi,m,mi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.2583 Relation: [b,d,e,f,fi,m,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.2584 Relation: [b,d,e,f,fi,m,o]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.2585 Relation: [b,d,e,f,fi,m,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.2586 Relation: [b,d,e,f,fi,m,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 2, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.2587 Relation: [b,d,e,f,fi,m,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.2588 Relation: [b,d,e,f,fi,m,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.2589 Relation: [b,d,e,f,fi,m,o,s]

Complement relation.

$$[\overline{o_j} + \ell_j - \ell_i + 1, +\infty[$$

1.2590 Relation: [b,d,e,f,fi,m,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.2591 Relation: [b,d,e,f,fi,m,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.2592 Relation: [b,d,e,f,fi,m,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2593 Relation: [b,d,e,f,fi,m,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2594 Relation: [b,d,e,f,fi,m,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.2595 Relation: [b,d,e,f,fi,m,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \underline{\ell_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.2596 Relation: [b,d,e,f,fi,m,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.2597 Relation: [b,d,e,f,fi,m,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.2598 Relation: [b,d,e,f,fi,m,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \underline{\ell_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.2599 Relation: [b,d,e,f,fi,mi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.2600 Relation: [b,d,e,f,fi,mi,o]

Complement relation.

$$\begin{cases} [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\underline{\sigma_j}, \underline{\sigma_j}] \cup [\underline{\sigma_j} + \ell_j - \ell_i + 1, \underline{\sigma_j} + \ell_j - 1] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\underline{\sigma_j} - 1, \underline{\sigma_j} - 1] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\underline{\sigma_j} - 1, \underline{\sigma_j}] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\underline{\sigma_j} + \ell_j - \ell_i + 1, \underline{\sigma_j} + \ell_j - 1] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.2601 Relation: [b,d,e,f,fi,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.2602 Relation: [b,d,e,f,fi,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2603 Relation: [b,d,e,f,fi,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.2604 Relation: [b,d,e,f,fi,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.2605 Relation: [b,d,e,f,fi,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \end{cases}$$

1.2606 Relation: [b,d,e,f,fi,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2607 Relation: [b,d,e,f,fi,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.2608 Relation: [b,d,e,f,fi,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.2609 Relation: [b,d,e,f,fi,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.2610 Relation: [b,d,e,f,fi,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.2611 Relation: [b,d,e,f,fi,mi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.2612 Relation: [b,d,e,f,fi,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.2613 Relation: [b,d,e,f,fi,mi,s,si]

Complement relation.

$$\begin{cases} [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} + \ell_j - \ell_i - 1] \cup [\underline{\sigma_j} + 1, \underline{\sigma_j} + \ell_j - 1] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - 1] \cup [\underline{\sigma_j} + \ell_j - \ell_i + 1, \underline{\sigma_j} + \ell_j - 1] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\underline{\sigma_j} + \ell_j - \ell_i + 1, \underline{\sigma_j} - 1] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} + \ell_j - \ell_i - 1] \cup [\underline{\sigma_j} + \ell_j - \ell_i + 1, \underline{\sigma_j} - 1] \cup [\underline{\sigma_j} + 1, \underline{\sigma_j} + \ell_j - 1] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.2614 Relation: [b,d,e,f,fi,mi,si]

Complement relation.

$[\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[$	if $\ell_i < \ell_j \wedge \ell_i > 1$
$[\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[$	if $\ell_i = 1 \wedge \ell_j > 1$
$[\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[$	if $\ell_i \leq \ell_j + 1 \wedge \ell_j = 1$
$[\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[$	if $\ell_i > \ell_j + 1 \wedge \ell_j = 1$
$[\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[$	if $\ell_i > \ell_j + 1 \wedge \ell_j > 1$
$[\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[$	if $\ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1$

1.2615 Relation: [b,d,e,f,fi,o]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.2616 Relation: [b,d,e,f,fi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 2\ell_i + 2] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_i + \ell_j > 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.2617 **Relation:** [b,d,e,f,fi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.2618 **Relation:** [b,d,e,f,fi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \\ [\overline{o_j} - \ell_i, o_j - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, o_j - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.2619 Relation: [b,d,e,f,fi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.2620 Relation: [b,d,e,f,fi,o,s]

Complement relation.

$$[\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[$$

1.2621 Relation: [b,d,e,f,fi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.2622 Relation: [b,d,e,f,fi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.2623 Relation: [b,d,e,f,fi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2624 Relation: [b,d,e,f,fi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} - \ell_i + 2, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2625 Relation: [b,d,e,f,fi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.2626 Relation: [b,d,e,f,fi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.2627 Relation: [b,d,e,f,fi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2628 Relation: [b,d,e,f,fi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.2629 Relation: [b,d,e,f,fi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.2630 Relation: [b,d,e,f,m]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2631 Relation: [b,d,e,f,m,mi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.2632 Relation: [b,d,e,f,m,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 2, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.2633 Relation: [b,d,e,f,m,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.2634 Relation: [b,d,e,f,m,mi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.2635 Relation: [b,d,e,f,m,mi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.2636 Relation: [b,d,e,f,m,mi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.2637 Relation: [b,d,e,f,m,mi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.2638 Relation: [b,d,e,f,m,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.2639 Relation: [b,d,e,f,m,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.2640 Relation: [b,d,e,f,m,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \end{array} \right.$$

1.2641 Relation: [b,d,e,f,m,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.2642 Relation: [b,d,e,f,m,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \end{array} \right.$$

1.2643 Relation: [b,d,e,f,m,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.2644 Relation: [b,d,e,f,m,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2645 Relation: [b,d,e,f,m,mi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2646 Relation: [b,d,e,f,m,mi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2647 Relation: [b,d,e,f,m,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2648 Relation: [b,d,e,f,m,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2649 Relation: [b,d,e,f,m,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2650 Relation: [b,d,e,f,m,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2651 Relation: [b,d,e,f,m,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2652 Relation: [b,d,e,f,m,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2653 Relation: [b,d,e,f,m,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2654 Relation: [b,d,e,f,m,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2655 Relation: [b,d,e,f,m,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2656 Relation: [b,d,e,f,m,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2657 Relation: [b,d,e,f,m,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > 1 \end{cases}$$

1.2658 Relation: [b,d,e,f,m,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.2659 Relation: [b,d,e,f,m,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2660 Relation: [b,d,e,f,m,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.2661 Relation: [b,d,e,f,m,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.2662 Relation: [b,d,e,f,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.2663 Relation: [b,d,e,f,mi,o]

Complement relation.

$$\begin{cases} [\underline{\sigma_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{\sigma_j}, \underline{o_j}] \cup [\underline{\sigma_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\underline{\sigma_j} - \ell_i, \underline{o_j} - 1] \cup [\underline{\sigma_j} + 2, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\underline{\sigma_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{\sigma_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\underline{\sigma_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{\sigma_j} + \ell_j - \underline{\ell_i}, \underline{o_j} + \ell_j - 1] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\underline{\sigma_j} - \ell_i, \underline{o_j}] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.2664 Relation: [b,d,e,f,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \overline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.2665 **Relation:** [b,d,e,f,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2666 Relation: [b,d,e,f,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2667 Relation: [b,d,e,f,mi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, o_j - \ell_i] \cup [\overline{o_j}, o_j] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \overline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \overline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \overline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, o_j - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, o_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.2668 Relation: [b,d,e,f,mi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j}] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.2669 Relation: [b,d,e,f,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2670 Relation: [b,d,e,f,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2671 Relation: [b,d,e,f,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \end{cases}$$

1.2672 Relation: [b,d,e,f,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2673 Relation: [b,d,e,f,mi,oi,s,si]

Complement relation.

$$[\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[$$

1.2674 Relation: [b,d,e,f,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.2675 Relation: [b,d,e,f,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2676 Relation: [b,d,e,f,mi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2677 Relation: [b,d,e,f,mi,si]

Complement relation.

$$\begin{cases} [\underline{o_j} - \ell_i, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2678 Relation: [b,d,e,f,o]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \underline{\ell}_i, \underline{o_j} - \underline{\ell}_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \underline{\ell}_j - \underline{\ell}_i + 1, +\infty[& \text{if } \underline{\ell}_i < \underline{\ell}_j \wedge \underline{\ell}_i > 1 \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \underline{\ell}_j, +\infty[& \text{if } \underline{\ell}_i = 1 \wedge \underline{\ell}_j > 1 \\ [\overline{o_j} - \underline{\ell}_i, \underline{o_j} - \underline{\ell}_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \underline{\ell}_i = \underline{\ell}_j \\ [\overline{o_j} - \underline{\ell}_i, +\infty[& \text{if } \underline{\ell}_i > 1 \wedge \underline{\ell}_j = 1 \\ [\overline{o_j} - \underline{\ell}_i, \underline{o_j} - \underline{\ell}_i] \cup [\overline{o_j} + \underline{\ell}_j - \underline{\ell}_i, +\infty[& \text{if } \underline{\ell}_i > \underline{\ell}_j \wedge \underline{\ell}_j > 1 \end{array} \right.$$

1.2679 Relation: [b,d,e,f,o,oi]

Complement relation.

$$\begin{cases} [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}}, \underline{o_j}] \cup [\underline{\overline{o_j}} + \underline{\ell_j}, +\infty[& \text{if } \ell_i < \underline{\ell_j} \wedge \ell_i > 1 \\ [\underline{\overline{o_j}} - 1, \underline{o_j}] \cup [\underline{\overline{o_j}} + \underline{\ell_j}, +\infty[& \text{if } \ell_i = 1 \wedge \underline{\ell_j} > 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + \underline{\ell_j}, +\infty[& \text{if } \ell_i = \underline{\ell_j} \\ [\underline{\overline{o_j}} - \underline{\ell_i}, +\infty[& \text{if } \ell_i > 1 \wedge \underline{\ell_j} = 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j}] \cup [\underline{\overline{o_j}} + \underline{\ell_j}, +\infty[& \text{if } \ell_i > \underline{\ell_j} \wedge \underline{\ell_j} > 1 \end{cases}$$

1.2680 Relation: [b,d,e,f,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, o_j - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, o_j] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2681 Relation: [b,d,e,f,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2682 Relation: [b,d,e,f,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.2683 Relation: [b,d,e,f,o,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.2684 Relation: [b,d,e,f,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.2685 Relation: [b,d,e,f,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.2686 Relation: [b,d,e,f,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.2687 Relation: [b,d,e,f,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.2688 Relation: [b,d,e,f,oi,s,si]

Complement relation.

$$[\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[$$

1.2689 Relation: [b,d,e,f,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.2690 Relation: [b,d,e,f,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2691 Relation: [b,d,e,f,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.2692 Relation: [b,d,e,f,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.2693 Relation: [b,d,e,fi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.2694 Relation: [b,d,e,fi,m]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \neq \ell_j + 1 \wedge \ell_j = 1 \end{cases}$$

1.2695 Relation: [b,d,e,fi,m,mi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.2696 Relation: [b,d,e,fi,m,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + 2, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \end{array} \right.$$

1.2697 Relation: [b,d,e,fi,m,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.2698 Relation: [b,d,e,fi,m,mi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.2699 Relation: [b,d,e,fi,m,mi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.2700 Relation: [b,d,e,fi,m,mi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.2701 Relation: [b,d,e,fi,m,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2702 **Relation:** [b,d,e,fi,m,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.2703 Relation: [b,d,e,fi,m,mi,o,si]

Complement relation.

$$\begin{cases} [\underline{\overline{o_j}}, \underline{o_j}] \cup [\underline{\overline{o_j}} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - 1] \cup [\underline{\overline{o_j}} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\underline{\overline{o_j}}, \underline{o_j} + \underline{\ell_j} - 1] \cup [\underline{\overline{o_j}} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\underline{\overline{o_j}} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{\overline{o_j}} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j} - 1] \cup [\underline{\overline{o_j}} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{\overline{o_j}} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j} - 1] \cup [\underline{\overline{o_j}} + 1, \underline{o_j} + \underline{\ell_j} - 1] \cup [\underline{\overline{o_j}} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\underline{\overline{o_j}} + 1, \underline{o_j} + \underline{\ell_j} - 1] \cup [\underline{\overline{o_j}} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2704 Relation: [b,d,e,fi,m,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ \overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + 2\ell_j - 2\ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ \overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.2705 **Relation:** [b,d,e,fi,m,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ \overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ \overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.2710 Relation: [b,d,e,fi,m,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.2711 Relation: [b,d,e,fi,m,o]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \neq \ell_j + 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \end{array} \right.$$

1.2712 Relation: [b,d,e,fi,m,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.2713 Relation: [b,d,e,fi,m,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 2, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.2714 Relation: [b,d,e,fi,m,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.2715 Relation: [b,d,e,fi,m,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_j + 2, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.2716 Relation: [b,d,e,fi,m,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.2717 Relation: [b,d,e,fi,m,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.2718 Relation: [b,d,e,fi,m,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.2719 Relation: [b,d,e,fi,m,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + 2\ell_j - 2\ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \neq \ell_j + 1 \wedge \ell_j = 1 \end{cases}$$

1.2720 Relation: [b,d,e,fi,m,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 2, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

Complement relation.

Complement relation.

Complement relation.

Complement relation.

Complement relation.

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1.2726 Relation: [b,d,e,fi,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.2727 Relation: [b,d,e,fi,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + 2\ell_j - 2\ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 2\ell_i + 2] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2728 Relation: [b,d,e,fi,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2729 Relation: [b,d,e,fi,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2730 Relation: [b,d,e,fi,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.2731 Relation: [b,d,e,fi,mi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - \ell_i, o_j] \cup [\underline{o_j} + \ell_j - \ell_i, o_j + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{o_j} - \ell_i, o_j - \ell_i] \cup [\underline{o_j}, o_j] \cup [\underline{o_j} + \ell_j - \ell_i, o_j + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, o_j + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{o_j} - \ell_i, o_j - \ell_i] \cup [\underline{o_j}, o_j + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, o_j - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i + 1, o_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\underline{o_j} - \ell_i, o_j - \ell_i] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.2732 Relation: [b,d,e,fi,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2733 Relation: [b,d,e,fi,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} - \ell_i + 2, \underline{o_j} + 2\ell_j - 3] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.2734 Relation: [b,d,e,fi,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + 2\ell_j - \ell_i - 2] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.2735 **Relation:** [b,d,e,fi,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + 2\ell_j - 2\ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2736 **Relation:** [b,d,e,fi,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2737 **Relation:** [b,d,e,fi,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \underline{\ell}_i, \underline{o_j} - 1] \cup [\overline{o_j} + \underline{\ell}_j - \underline{\ell}_i, \underline{o_j} + \underline{\ell}_j - \underline{\ell}_i] \cup [\overline{o_j} + \underline{\ell}_j + 1, +\infty[& \text{if } \underline{\ell}_i < \underline{\ell}_j \\ [\overline{o_j} - \underline{\ell}_i, \underline{o_j} + \underline{\ell}_j - \underline{\ell}_i - 1] \cup [\overline{o_j} + \underline{\ell}_j - \underline{\ell}_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \underline{\ell}_j + 1, +\infty[& \text{if } \underline{\ell}_i > \underline{\ell}_j + 1 \\ [\overline{o_j} - \underline{\ell}_i, \underline{o_j} + \underline{\ell}_j - \underline{\ell}_i - 1] \cup [\overline{o_j} + \underline{\ell}_j + 1, +\infty[& \text{if } \underline{\ell}_i \geq \underline{\ell}_j \wedge \underline{\ell}_i \leq \underline{\ell}_j + 1 \end{cases}$$

1.2738 Relation: [b,d,e,fi,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.2739 **Relation:** [b,d,e,fi,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, o_j - 1] \cup [\overline{o_j} + \ell_j - \ell_i, o_j + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, o_j - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, o_j + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, o_j + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2740 **Relation:** [b,d,e,fi,mi,s,si]

Complement relation.

$[\underline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[$	if $\ell_i < \ell_j - 1$
$[\underline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[$	if $\ell_i = \ell_j + 1 \wedge \ell_j > 1$
$[\underline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[$	if $\ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1$
$[\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j + 1, +\infty[$	if $\ell_i \leq \ell_j + 1 \wedge \ell_j = 1$
$[\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[$	if $\ell_i > \ell_j + 1 \wedge \ell_j = 1$
$[\underline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[$	if $\ell_i > \ell_j + 1 \wedge \ell_j > 1$

1.2741 **Relation:** [b,d,e,fi,mi,si]

Complement relation.

$$\begin{cases} [\overline{\sigma_j} - \ell_i, \sigma_j] \cup [\overline{\sigma_j} + \ell_j - \ell_i, \sigma_j + \ell_j - 1] \cup [\overline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{\sigma_j} - \ell_i, \sigma_j + \ell_j - 1] \cup [\overline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{\sigma_j} - \ell_i, \sigma_j - \ell_i] \cup [\overline{\sigma_j} + 2, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{\sigma_j} - \ell_i, \sigma_j - \ell_i] \cup [\overline{\sigma_j} - \ell_i + 2, \sigma_j - 1] \cup [\overline{\sigma_j} + 2, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{\sigma_j} - \ell_i, \overline{\sigma_j} + \ell_j - \ell_i - 1] \cup [\overline{\sigma_j} + \ell_j - \ell_i + 1, \sigma_j - 1] \cup [\overline{\sigma_j} + 1, \sigma_j + \ell_j - 1] \cup [\overline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{\sigma_j} - \ell_i, \overline{\sigma_j} + \ell_j - \ell_i - 1] \cup [\overline{\sigma_j} + 1, \sigma_j + \ell_j - 1] \cup [\overline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2742 **Relation:** [b,d,e,fi,o]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{\sigma_j} - 1, \underline{\sigma_j}] \cup [\underline{\sigma_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\underline{\sigma_j}, \underline{\sigma_j}] \cup [\underline{\sigma_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{\sigma_j} - 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\underline{\sigma_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \neq \ell_j + 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\underline{\sigma_j}, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.2743 Relation: [b,d,e,fi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [o_j + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 2\ell_i + 2] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.2744 Relation: [b,d,e,fi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \underline{\ell}_i, \underline{o_j} - \underline{\ell}_i] \cup [\overline{o_j} + \underline{\ell}_j - \underline{\ell}_i, \underline{o_j} + \underline{\ell}_j - \underline{\ell}_i] \cup [\overline{o_j} + \underline{\ell}_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \underline{\ell}_i, \underline{o_j} - \underline{\ell}_i] \cup [\overline{o_j} + \underline{\ell}_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \underline{\ell}_i, \underline{o_j} - \underline{\ell}_i] \cup [\overline{o_j} + \underline{\ell}_j - 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \underline{\ell}_i, \underline{o_j} - \underline{\ell}_i] \cup [\overline{o_j} + \underline{\ell}_j - \underline{\ell}_i + 1, \underline{o_j}] \cup [\overline{o_j} + \underline{\ell}_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \underline{\ell}_i, \underline{o_j} - \underline{\ell}_i] \cup [\overline{o_j} - \underline{\ell}_i + 2, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.2745 **Relation:** [b,d,e,fi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\underline{o_j} + \underline{\ell_j}, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - 1, \underline{o_j} - 1] \cup [\underline{o_j} + \underline{\ell_j} - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{o_j} - 1, \underline{o_j} - 1] \cup [\underline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j} - 1] \cup [\underline{o_j} + \underline{\ell_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j} + \underline{\ell_j}, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.2746 Relation: [b,d,e,fi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.2747 Relation: [b,d,e,fi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.2748 Relation: [b,d,e,fi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.2749 Relation: [b,d,e,fi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.2750 Relation: [b,d,e,fi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 2\ell_i + 2] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{cases}$$

1.2751 Relation: [b,d,e,fi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} - \ell_i + 2, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.2752 Relation: [b,d,e,fi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.2753 Relation: [b,d,e,fi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.2754 Relation: [b,d,e,fi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.2755 Relation: [b,d,e,fi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.2756 Relation: [b,d,e,fi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.2757 Relation: [b,d,e,m]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_j + 2, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.2758 Relation: [b,d,e,m,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \end{cases}$$

1.2759 Relation: [b,d,e,m,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + 2, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_j + \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2760 Relation: [b,d,e,m,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2761 Relation: [b,d,e,m,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2762 Relation: [b,d,e,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2763 Relation: [b,d,e,m,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2764 **Relation:** [b,d,e,m,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \underline{o_i}, o_j + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \end{cases}$$

1.2765 Relation: [b,d,e,m,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - 1] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i < \underline{\ell_j} - 1 \\ \overline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \underline{\ell_j} = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \underline{\ell_j} - 1] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i \leq \underline{\ell_j} \wedge \ell_i \geq \underline{\ell_j} - 1 \wedge \underline{\ell_j} > 1 \\ \overline{o_j} - \underline{\ell_i} + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \underline{\ell_j} = 1 \\ [\overline{o_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{\ell_j} - 1] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i > \underline{\ell_j} \wedge \underline{\ell_j} > 1 \end{array} \right.$$

1.2766 Relation: [b,d,e,m,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_j + \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.2767 Relation: [b,d,e,m,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + 2\ell_j - 2\ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2768 Relation: [b,d,e,m,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ \overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ \overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.2769 Relation: [b,d,e,m,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ \overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ \overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.2770 Relation: [b,d,e,m,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.2771 Relation: [b,d,e,m,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.2772 Relation: [b,d,e,m,mi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2773 Relation: [b,d,e,m,mi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2774 Relation: [b,d,e,m,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_j + \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2775 Relation: [b,d,e,m,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.2776 Relation: [b,d,e,m,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.2777 Relation: [b,d,e,m,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2778 Relation: [b,d,e,m,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j}, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2779 Relation: [b,d,e,m,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \end{cases}$$

1.2780 Relation: [b,d,e,m,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2781 Relation: [b,d,e,m,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_j + \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2782 Relation: [b,d,e,m,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_j + 2, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + 2\ell_j - 2\ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2783 Relation: [b,d,e,m,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.2784 Relation: [b,d,e,m,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.2785 Relation: [b,d,e,m,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_j + 2, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.2786 Relation: [b,d,e,m,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.2787 Relation: [b,d,e,m,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \end{array} \right.$$

1.2788 Relation: [b,d,e,m,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_j + 2, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.2789 Relation: [b,d,e,mi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \end{array} \right.$$

1.2790 Relation: [b,d,e,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + 2\ell_j - 2\ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} - \ell_j + \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.2796 Relation: [b,d,e,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.2797 Relation: [b,d,e,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} - \ell_j + \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + 2\ell_j - 3] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.2798 Relation: [b,d,e,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + 2\ell_j - 2\ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.2799 Relation: [b,d,e,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.2800 Relation: [b,d,e,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.2801 Relation: [b,d,e,mi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.2802 Relation: [b,d,e,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2803 Relation: [b,d,e,mi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \end{cases}$$

1.2804 Relation: [b,d,e,mi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2805 Relation: [b,d,e,o]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.2806 Relation: [b,d,e,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.2807 Relation: [b,d,e,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\overline{\sigma_j} + \ell_j - \ell_i, \underline{\sigma_j} + \ell_j - \ell_i] \cup [\overline{\sigma_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\underline{\sigma_j} - 1, \underline{\sigma_j} - 1] \cup [\overline{\sigma_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\overline{\sigma_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\underline{\sigma_j} - 1, \underline{\sigma_j} - 1] \cup [\overline{\sigma_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{\sigma_j} - \ell_i, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\underline{\sigma_j} - \ell_i, \sigma_j - \ell_i] \cup [\overline{\sigma_j} + \ell_j - \ell_i, \sigma_j] \cup [\overline{\sigma_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.2808 **Relation:** [b,d,e,o,oi,s,si]

Complement relation.

$$\begin{cases} [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + \underline{\ell_j}, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\underline{\overline{o_j}} + \underline{\ell_j} - \underline{\ell_i}, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + \underline{\ell_j}, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\underline{\overline{o_j}} + \underline{\ell_j}, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\underline{\overline{o_j}} + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.2809 Relation: [b,d,e,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{\overline{o_j}} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{\overline{o_j}} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{\overline{o_j}}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{\overline{o_j}} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\ [\underline{\overline{o_j}} - 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{\overline{o_j}} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{\overline{o_j}}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{\overline{o_j}} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\underline{\overline{o_j}} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.2810 Relation: [b,d,e,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2811 Relation: [b,d,e,o,s,si]

Complement relation.

$$\begin{cases} [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2812 Relation: [b,d,e,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} - \ell_j + \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.2813 Relation: [b,d,e,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.2814 Relation: [b,d,e,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.2815 Relation: [b,d,e,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.2816 Relation: [b,d,e,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.2817 Relation: [b,d,e,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2818 Relation: [b,d,e,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \end{cases}$$

1.2819 Relation: [b,d,e,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.2820 Relation: [b,d,f]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.2821 Relation: [b,d,f,fi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2822 Relation: [b,d,f,fi,m]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{cases}$$

1.2823 Relation: [b,d,f,fi,m,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{cases}$$

1.2824 Relation: [b,d,f,fi,m,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2825 Relation: [b,d,f,fi,m,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.2826 Relation: [b,d,f,fi,m,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2827 Relation: [b,d,f,fi,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.2828 Relation: [b,d,f,fi,m,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.2829 Relation: [b,d,f,fi,m,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.2830 Relation: [b,d,f,fi,m,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, o_j + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.2831 **Relation:** [b,d,f,fi,m,mi,o,si]

Complement relation.

$$\begin{cases} [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j} + \underline{\ell_j} - 1] \cup [\underline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \underline{\ell_i} < \underline{\ell_j} \wedge \underline{\ell_i} > 1 \\ [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \underline{\ell_i} = 1 \\ [\underline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \underline{\ell_i} = \underline{\ell_j} + 1 \wedge \underline{\ell_j} = 1 \\ [\underline{o_j} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j} - 1] \cup [\underline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \underline{\ell_i} > \underline{\ell_j} + 1 \wedge \underline{\ell_j} = 1 \\ [\underline{o_j} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \underline{\ell_j} - 1] \cup [\underline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \underline{\ell_i} > \underline{\ell_j} + 1 \wedge \underline{\ell_j} > 1 \\ [\underline{o_j} - \underline{\ell_j} + \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - 1] \cup [\underline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \underline{\ell_i} \geq \underline{\ell_j} \wedge \underline{\ell_i} \leq \underline{\ell_j} + 1 \wedge \underline{\ell_i} > 1 \wedge \underline{\ell_j} > 1 \end{cases}$$

1.2832 Relation: [b,d,f,fi,m,mi,oi]

Complement relation.

$$\begin{array}{ll} [\underline{\overline{o_j}} - \ell_i + 1, \underline{o_j}] \cup [\underline{\overline{o_j}} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\underline{\overline{o_j}}, \underline{o_j}] \cup [\underline{\overline{o_j}} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\underline{\overline{o_j}} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{\overline{o_j}} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\underline{\overline{o_j}} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\underline{\overline{o_j}} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\underline{\overline{o_j}} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array}$$

1.2833 Relation: [b,d,f,fi,m,mi,oi,s]

Complement relation.

$$\begin{cases} [\underline{\overline{o_j}} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{\overline{o_j}} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\underline{\overline{o_j}} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\underline{\overline{o_j}} - \ell_i + 1, \underline{o_j}] \cup [\underline{\overline{o_j}} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\underline{\overline{o_j}}, \underline{o_j}] \cup [\underline{\overline{o_j}} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{\overline{o_j}} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{\overline{o_j}} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\underline{\overline{o_j}} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\underline{\overline{o_j}} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\underline{\overline{o_j}} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{cases}$$

1.2834 **Relation:** [b,d,f,fi,m,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.2835 Relation: [b,d,f,fi,m,mi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.2836 Relation: [b,d,f,fi,m,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{cases}$$

1.2837 **Relation:** [b,d,f,fi,m,mi,s,si]

Complement relation.

$[\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[$	if $\ell_i < \ell_j \wedge \ell_i > 1$
$[\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[$	if $\ell_i = \ell_j$
$[\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[$	if $\ell_i = \ell_j + 1 \wedge \ell_j > 1$
$[\overline{o_j} + \ell_j + 1, +\infty[$	if $\ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1$
$[\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[$	if $\ell_i > \ell_j + 1 \wedge \ell_j = 1$
$[\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[$	if $\ell_i > \ell_j + 1 \wedge \ell_j > 1$

1.2838 **Relation:** [b,d,f,fi,m,mi,si]

Complement relation.

$[\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[$	if $\ell_i < \ell_j \wedge \ell_i > 1$
$[\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[$	if $\ell_i = 1$
$[\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[$	if $\ell_i = \ell_j \wedge \ell_i > 1$
$[\overline{o_j} + \ell_j + 1, +\infty[$	if $\ell_i = \ell_j + 1 \wedge \ell_j = 1$
$[\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[$	if $\ell_i = \ell_j + 1 \wedge \ell_j > 1$
$[\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[$	if $\ell_i > \ell_j + 1 \wedge \ell_j = 1$
$[\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[$	if $\ell_i > \ell_j + 1 \wedge \ell_j > 1$

1.2839 Relation: [b,d,f,fi,m,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j}, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2840 Relation: [b,d,f,fi,m,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.2841 Relation: [b,d,f,fi,m,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2842 Relation: [b,d,f,fi,m,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_i - 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.2843 Relation: [b,d,f,fi,m,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_i - 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.2844 Relation: [b,d,f,fi,m,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j}, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \end{cases}$$

1.2845 Relation: [b,d,f,fi,m,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_j + \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.2846 Relation: [b,d,f,fi,m,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_j + \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.2847 Relation: [b,d,f,fi,m,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{cases}$$

1.2848 Relation: [b,d,f,fi,m,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.2849 Relation: [b,d,f,fi,m,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_i - 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + 2\ell_j - 2\ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2850 Relation: [b,d,f,fi,m,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_i - 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.2851 Relation: [b,d,f,fi,m,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.2852 Relation: [b,d,f,fi,m,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.2853 Relation: [b,d,f,fi,m,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.2854 Relation: [b,d,f,fi,mi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.2855 Relation: [b,d,f,fi,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.2856 Relation: [b,d,f,fi,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.2857 Relation: [b,d,f,fi,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\underline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, o_j] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.2858 Relation: [b,d,f,fi,mi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.2859 Relation: [b,d,f,fi,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\underline{o_j} - 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.2860 **Relation:** [b,d,f,fi,mi,o,s]

Complement relation.

$$\begin{cases} [\underline{o_j} - \ell_i, \underline{o_j}] \cup [\underline{o_j} + 2, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.2861 Relation: [b,d,f,fi,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + 2\ell_j - 2\ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} - \ell_j + \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2862 Relation: [b,d,f,fi,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 2\ell_i + 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} - \ell_j + \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.2863 Relation: [b,d,f,fi,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.2864 Relation: [b,d,f,fi,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.2865 Relation: [b,d,f,fi,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + 2\ell_j - 2\ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.2866 Relation: [b,d,f,fi,mi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 2\ell_i + 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.2867 Relation: [b,d,f,fi,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.2868 **Relation:** [b,d,f,fi,mi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.2869 Relation: [b,d,f,fi,mi,si]

Complement relation.

$[\underline{\sigma_j} - \ell_i, \underline{o_j}] \cup [\underline{\sigma_j} + \ell_j - \ell_i + 1, \underline{\sigma_j} + \ell_j - 1] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[$	$\text{if } \ell_i < \ell_j \wedge \ell_i > 1$
$[\underline{\sigma_j} - \ell_i, \underline{\sigma_j} + \ell_j - 1] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[$	$\text{if } \ell_i = \ell_j \wedge \ell_i > 1$
$[\underline{\sigma_j} - \ell_i, \underline{\sigma_j} + \ell_j - \ell_i - 1] \cup [\underline{\sigma_j} + 1, \underline{\sigma_j} + \ell_j - 1] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[$	$\text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1$
$[\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - 2\ell_i + 2] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[$	$\text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1$
$[\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\underline{\sigma_j} + \ell_j - \ell_i + 1, \underline{\sigma_j} - 1] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[$	$\text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1$
$[\underline{\sigma_j} - \ell_i, \underline{\sigma_j} + \ell_j - \ell_i - 1] \cup [\underline{\sigma_j} + \ell_j - \ell_i + 1, \underline{\sigma_j} - 1] \cup [\underline{\sigma_j} + 1, \underline{\sigma_j} + \ell_j - 1] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[$	$\text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1$

1.2870 Relation: [b,d,f,fi,o]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ \overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ \overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.2871 Relation: [b,d,f,fi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 2\ell_i + 2] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.2872 **Relation:** [b,d,f,fi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\ \overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.2873 Relation: [b,d,f,fi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.2874 Relation: [b,d,f,fi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 2\ell_i + 2] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.2875 Relation: [b,d,f,fi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \end{array} \right.$$

1.2876 Relation: [b,d,f,fi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} - \ell_j + \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.2877 Relation: [b,d,f,fi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} - \ell_j + \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.2878 Relation: [b,d,f,fi,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} - \ell_i + 2, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.2879 Relation: [b,d,f,fi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2880 Relation: [b,d,f,fi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + 2\ell_j - 2\ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.2881 Relation: [b,d,f,fi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 2] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.2882 Relation: [b,d,f,fi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2883 Relation: [b,d,f,fi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.2884 Relation: [b,d,f,fi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.2885 Relation: [b,d,f,m]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.2886 Relation: [b,d,f,m,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2887 Relation: [b,d,f,m,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2888 Relation: [b,d,f,m,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2889 Relation: [b,d,f,m,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.2890 Relation: [b,d,f,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2891 Relation: [b,d,f,m,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2892 Relation: [b,d,f,m,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.2893 Relation: [b,d,f,m,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2894 Relation: [b,d,f,m,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2895 Relation: [b,d,f,m,mi,oi]

Complement relation.

$$[\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[$$

1.2896 Relation: [b,d,f,m,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.2897 Relation: [b,d,f,m,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.2898 Relation: [b,d,f,m,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2899 Relation: [b,d,f,m,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.2900 Relation: [b,d,f,m,mi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2901 Relation: [b,d,f,m,mi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2902 Relation: [b,d,f,m,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.2903 Relation: [b,d,f,m,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2904 Relation: [b,d,f,m,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2905 Relation: [b,d,f,m,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2906 Relation: [b,d,f,m,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2907 Relation: [b,d,f,m,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.2908 Relation: [b,d,f,m,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j}, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2909 Relation: [b,d,f,m,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j}, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2910 Relation: [b,d,f,m,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_j > 1 \end{cases}$$

1.2911 Relation: [b,d,f,m,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2912 Relation: [b,d,f,m,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.2913 Relation: [b,d,f,m,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2914 Relation: [b,d,f,m,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.2915 Relation: [b,d,f,m,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2916 Relation: [b,d,f,m,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2917 Relation: [b,d,f,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2918 Relation: [b,d,f,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2919 Relation: [b,d,f,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_i > 1 \end{cases}$$

1.2920 Relation: [b,d,f,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2921 Relation: [b,d,f,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2922 Relation: [b,d,f,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2923 Relation: [b,d,f,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2924 Relation: [b,d,f,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.2925 Relation: [b,d,f,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2926 Relation: [b,d,f,mi,oi]

Complement relation.

$$[\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[$$

1.2927 Relation: [b,d,f,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.2928 Relation: [b,d,f,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \end{cases}$$

1.2929 Relation: [b,d,f,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2930 Relation: [b,d,f,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.2931 Relation: [b,d,f,mi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.2932 Relation: [b,d,f,mi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2933 Relation: [b,d,f,o]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2934 Relation: [b,d,f,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2935 Relation: [b,d,f,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2936 Relation: [b,d,f,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.2937 Relation: [b,d,f,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2938 Relation: [b,d,f,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2939 Relation: [b,d,f,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\underline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \overline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.2940 Relation: [b,d,f,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\underline{o_j} - 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.2941 Relation: [b,d,f,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, o_j] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_j > 1 \end{cases}$$

1.2942 Relation: [b,d,f,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2943 Relation: [b,d,f,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \neq \ell_j \end{cases}$$

1.2944 Relation: [b,d,f,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2945 Relation: [b,d,f,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.2946 Relation: [b,d,f,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2947 Relation: [b,d,f,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2948 Relation: [b,d,fi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2949 Relation: [b,d,fi,m]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.2950 Relation: [b,d,fi,m,mi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.2951 Relation: [b,d,fi,m,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.2952 Relation: [b,d,fi,m,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.2953 Relation: [b,d,fi,m,mi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.2954 Relation: [b,d,fi,m,mi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.2955 Relation: [b,d,fi,m,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.2956 Relation: [b,d,fi,m,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2957 Relation: [b,d,fi,m,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \neq \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \end{cases}$$

1.2958 Relation: [b,d,fi,m,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.2959 Relation: [b,d,fi,m,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{cases}$$

1.2965 Relation: [b,d,fi,m,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.2966 Relation: [b,d,fi,m,o]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.2967 Relation: [b,d,fi,m,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.2968 Relation: [b,d,fi,m,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.2969 Relation: [b,d,fi,m,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i = 1 \end{array} \right.$$

1.2970 Relation: [b,d,fi,m,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.2971 Relation: [b,d,fi,m,o,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.2972 Relation: [b,d,fi,m,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \neq \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \end{array} \right.$$

1.2973 Relation: [b,d,fi,m,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.2974 Relation: [b,d,fi,m,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.2975 Relation: [b,d,fi,m,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.2976 Relation: [b,d,fi,m,oi,s,si]

Complement relation.

$[\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[$	if $\ell_i < \ell_j \wedge \ell_i > 1$
$[\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[$	if $\ell_i > \ell_j + 1 \wedge \ell_j = 1$
$[\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[$	if $\ell_i > \ell_j + 1 \wedge \ell_j > 1$
$[\overline{o_j} - \ell_i + 1, \underline{o_j} + 2\ell_j - 2\ell_i] \cup [\overline{o_j} + \ell_j, +\infty[$	if $\ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1$
$[\overline{o_j} + 1, +\infty[$	if $\ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1$
$[\overline{o_j} + \ell_j - 1, +\infty[$	if $\ell_i \neq \ell_j - 1 \wedge \ell_i = 1$

1.2977 Relation: [b,d,fi,m,oi,si]

Complement relation.

$[\underline{\overline{o_j}}, \underline{o_j}] \cup [\underline{\overline{o_j}} + \ell_j - 1, +\infty[$	if $\ell_i < \ell_j - 1 \wedge \ell_i = 1$
$[\underline{\overline{o_j}} - \ell_i + 1, \underline{o_j}] \cup [\underline{\overline{o_j}} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{\overline{o_j}} + \ell_j, +\infty[$	if $\ell_i < \ell_j - 1 \wedge \ell_i > 1$
$[\underline{\overline{o_j}} - \ell_i + 1, \underline{o_j} + 1] \cup [\underline{\overline{o_j}} + \ell_j, +\infty[$	if $\ell_i = \ell_j - 1 \wedge \ell_i > 1$
$[\underline{\overline{o_j}} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{\overline{o_j}} + 1, +\infty[$	if $\ell_i > \ell_j + 1 \wedge \ell_j = 1$
$[\underline{\overline{o_j}} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{\overline{o_j}} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{\overline{o_j}} + \ell_j, +\infty[$	if $\ell_i > \ell_j + 1 \wedge \ell_j > 1$
$[\underline{\overline{o_j}} - \ell_i + 1, \underline{o_j} + 2\ell_j - 2\ell_i] \cup [\underline{\overline{o_j}} + \ell_j, +\infty[$	if $\ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1$
$[\underline{\overline{o_j}} + \ell_i - 1, +\infty[$	if $\ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1$

1.2978 **Relation:** [b,d,fi,m,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j + \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.2979 Relation: [b,d,fi,m,s,si]

Complement relation.

$[\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[$	if $\ell_i < \ell_j \wedge \ell_i > 1$
$[\overline{o_j} - \ell_i + 1, +\infty[$	if $\ell_i = \ell_j \wedge \ell_i > 1$
$[\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[$	if $\ell_i = \ell_j + 1 \wedge \ell_j > 1$
$[\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[$	if $\ell_i > \ell_j + 1 \wedge \ell_j = 1$
$[\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[$	if $\ell_i > \ell_j + 1 \wedge \ell_j > 1$
$[\overline{o_j} + 1, +\infty[$	if $\ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1$
$[\overline{o_j} + \ell_j - 1, +\infty[$	if $\ell_i \neq \ell_j - 1 \wedge \ell_i = 1$

1.2980 Relation: [b,d,fi,m,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{\sigma_j} - \ell_i + 1, \underline{\sigma_j}] \cup [\overline{\sigma_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{\sigma_j} - \ell_i + 1, \underline{\sigma_j} + \ell_j - \ell_i - 1] \cup [\overline{\sigma_j} + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{\sigma_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{\sigma_j} + \ell_j - \ell_i + 1, \underline{\sigma_j} - 1] \cup [\overline{\sigma_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{\sigma_j} - \ell_i + 1, \underline{\sigma_j} + \ell_j - \ell_i - 1] \cup [\overline{\sigma_j} + \ell_j - \ell_i + 1, \underline{\sigma_j} - 1] \cup [\overline{\sigma_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{\sigma_j} + \ell_i - 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.2981 Relation: [b,d,fi,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \underline{\ell_i}, \underline{o_j}] \cup [\overline{o_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - 1] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - 1] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i} - 1] \cup [\overline{o_j} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j} + \underline{\ell_j} - 1] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2982 Relation: [b,d,fi,mi,o]

Complement relation.

$$\begin{cases} [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - 2\ell_i + 2] \cup [\underline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.2983 Relation: [b,d,fi,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - 1, \underline{o_j}] \cup [\underline{o_j} + \underline{\ell_j} - 1, \underline{o_j} + \underline{\ell_j} - 1] \cup [\underline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \underline{\ell_j} - \ell_i, \underline{o_j} + \underline{\ell_j} - \ell_i] \cup [\underline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j} + 1] \cup [\underline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - 1, \underline{o_j} + \underline{\ell_j} - 1] \cup [\underline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \underline{\ell_j} - \ell_i + 1, \underline{o_j}] \cup [\underline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.2984 Relation: [b,d,fi,mi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j}] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \underline{\ell_i} \leq \underline{\ell_j} + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.2985 Relation: [b,d,fi,mi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{\sigma_j} - 1, \underline{\sigma_j}] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\underline{\sigma_j} + \ell_j - \ell_i, \underline{\sigma_j} + \ell_j - \ell_i] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\underline{\sigma_j} + \ell_j - \ell_i + 1, \underline{\sigma_j} - 1] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.2986 Relation: [b,d,fi,mi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{\sigma_j} - 1, \underline{o_j}] \cup [\underline{\sigma_j} + \underline{\ell_j} - 1, \underline{o_j} + \underline{\ell_j} - 1] \cup [\underline{\sigma_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i < \underline{\ell_j} - 1 \wedge \ell_i = 1 \\ [\underline{\sigma_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{\sigma_j}, \underline{o_j}] \cup [\underline{\sigma_j} + \underline{\ell_j} - \ell_i, \underline{o_j} + \underline{\ell_j} - \ell_i] \cup [\underline{\sigma_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i < \underline{\ell_j} - 1 \wedge \ell_i > 1 \\ [\underline{\sigma_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{\sigma_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i = \underline{\ell_j} + 1 \\ [\underline{\sigma_j} - 1, \underline{o_j} + \underline{\ell_j} - 1] \cup [\underline{\sigma_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i \leq \underline{\ell_j} \wedge \ell_i \geq \underline{\ell_j} - 1 \wedge \ell_i = 1 \\ [\underline{\sigma_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{\sigma_j}, \underline{o_j} + \underline{\ell_j} - \ell_i] \cup [\underline{\sigma_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i \leq \underline{\ell_j} \wedge \ell_i \geq \underline{\ell_j} - 1 \wedge \ell_i > 1 \\ [\underline{\sigma_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{\sigma_j} + \underline{\ell_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{\sigma_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i > \underline{\ell_j} + 1 \end{array} \right.$$

1.2987 Relation: [b,d,fi,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, o_j - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, o_j] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, o_j - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, o_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.2988 Relation: [b,d,fi,mi,o,s,si]

Complement relation.

$[\overline{\sigma_j} - \ell_i, \sigma_j - \ell_i] \cup [\overline{\sigma_j} + \ell_j - \ell_i, \sigma_j + \ell_j - 1] \cup [\overline{\sigma_j} + \ell_j + 1, +\infty[$	if $\ell_i \leq \ell_j \wedge \ell_i \neq \ell_j - 1 \wedge \ell_j > 1$
$[\overline{\sigma_j} - \ell_i, \sigma_j + 2\ell_j - 2\ell_i] \cup [\overline{\sigma_j} + \ell_j + 1, +\infty[$	if $\ell_i \leq \ell_j + 1 \wedge \ell_j = 1$
$[\overline{\sigma_j} - \ell_i, \sigma_j - \ell_i] \cup [\overline{\sigma_j} + \ell_j - \ell_i + 1, \sigma_j - 1] \cup [\overline{\sigma_j} + 1, \sigma_j + \ell_j - 1] \cup [\overline{\sigma_j} + \ell_j + 1, +\infty[$	if $\ell_i > \ell_j + 1 \wedge \ell_j > 1$
$[\overline{\sigma_j} - \ell_i, \sigma_j - \ell_i] \cup [\overline{\sigma_j} + 1, \sigma_j + \ell_j - 1] \cup [\overline{\sigma_j} + \ell_j + 1, +\infty[$	if $\ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1$
$[\overline{\sigma_j} - \ell_i, \sigma_j - \ell_i] \cup [\overline{\sigma_j} - \ell_i + 2, \sigma_j + 2\ell_j - 3] \cup [\overline{\sigma_j} + \ell_j + 1, +\infty[$	if $\ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1$

1.2989 Relation: [b,d,fi,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, o_j] \cup [\overline{o_j} + \underline{o_j} - 1, \underline{o_j} + \underline{o_j} - 1] \cup [\overline{o_j} + \underline{o_j} + 1, +\infty[& \text{if } \ell_i < \underline{o_j} - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \underline{o_j} - \ell_i, \underline{o_j} + \underline{o_j} - 1] \cup [\overline{o_j} + \underline{o_j} + 1, +\infty[& \text{if } \ell_i < \underline{o_j} - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{o_j} - 1] \cup [\overline{o_j} + \underline{o_j} + 1, +\infty[& \text{if } \ell_i = \underline{o_j} + 1 \wedge \underline{o_j} > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \underline{o_j} - 1] \cup [\overline{o_j} + \underline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \underline{o_j} \wedge \ell_i \geq \underline{o_j} - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \underline{o_j} + 1, +\infty[& \text{if } \ell_i > \underline{o_j} + 1 \wedge \underline{o_j} = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{o_j} - 1] \cup [\overline{o_j} + \underline{o_j} + 1, +\infty[& \text{if } \ell_i > \underline{o_j} + 1 \wedge \underline{o_j} > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \underline{o_j} - 2\ell_i + 1] \cup [\overline{o_j} + \underline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \underline{o_j} - 1 \wedge \ell_i \leq \underline{o_j} + 1 \wedge \min(\ell_i, \underline{o_j}) = 1 \end{array} \right.$$

1.2990 Relation: [b,d,fi,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, o_j] \cup [\overline{o_j} + \ell_j - \ell_i, o_j + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \overline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \overline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, o_j] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2991 Relation: [b,d,fi,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2992 **Relation:** [b,d,fi,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \underline{\ell}_i, \underline{o_j} - 1] \cup [\overline{o_j} + \underline{\ell}_j - \underline{\ell}_i, \underline{o_j} + \underline{\ell}_j - \underline{\ell}_i] \cup [\overline{o_j} + \underline{\ell}_j + 1, +\infty[& \text{if } \underline{\ell}_i < \underline{\ell}_j \\ [\overline{o_j} - \underline{\ell}_i, \underline{o_j} + \underline{\ell}_j - \underline{\ell}_i - 1] \cup [\overline{o_j} + \underline{\ell}_j - \underline{\ell}_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \underline{\ell}_j + 1, +\infty[& \text{if } \underline{\ell}_i > \underline{\ell}_j + 1 \\ [\overline{o_j} - \underline{\ell}_i, \underline{o_j} + 2\underline{\ell}_j - 2\underline{\ell}_i] \cup [\overline{o_j} + \underline{\ell}_j + 1, +\infty[& \text{if } \underline{\ell}_j \geq \underline{\ell}_i \wedge \underline{\ell}_i \leq \underline{\ell}_j + 1 \end{cases}$$

1.2993 Relation: [b,d,fi,mi,oi,si]

Complement relation.

$$\begin{cases} [\underline{o_j} - \ell_i, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + 2\ell_j - 2\ell_i] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.2994 Relation: [b,d,fi,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.2995 Relation: [b,d,fi,mi,s,si]

Complement relation.

$[\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[$	if $\ell_i < \ell_j$
$[\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[$	if $\ell_i = \ell_j$
$[\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[$	if $\ell_i = \ell_j + 1 \wedge \ell_j = 1$
$[\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[$	if $\ell_i = \ell_j + 1 \wedge \ell_j > 1$
$[\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[$	if $\ell_i > \ell_j + 1 \wedge \ell_j = 1$
$[\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[$	if $\ell_i > \ell_j + 1 \wedge \ell_j > 1$

1.2996 Relation: [b,d,fi,mi,si]

Complement relation.

$$\begin{cases} \overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ \overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ \overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ \overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ \overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ \overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 2\ell_i + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.3002 Relation: [b,d,fi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.3003 Relation: [b,d,fi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \neq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \end{cases}$$

1.3004 Relation: [b,d,fi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.3005 Relation: [b,d,fi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 2\ell_i + 2] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{cases}$$

1.3006 Relation: [b,d,fi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{cases}$$

1.3007 Relation: [b,d,fi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + 2\ell_j - 2\ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.3008 Relation: [b,d,fi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + 2\ell_j - 2\ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.3009 Relation: [b,d,fi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3010 Relation: [b,d,fi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.3011 Relation: [b,d,fi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.3012 Relation: [b,d,m]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \end{cases}$$

1.3013 Relation: [b,d,m,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \end{cases}$$

1.3014 Relation: [b,d,m,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3015 Relation: [b,d,m,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3016 Relation: [b,d,m,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3017 Relation: [b,d,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3018 Relation: [b,d,m,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3019 Relation: [b,d,m,mi,o,s]

Complement relation.

$$[\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[$$

1.3020 Relation: [b,d,m,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3021 Relation: [b,d,m,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3022 Relation: [b,d,m,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.3023 Relation: [b,d,m,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.3024 Relation: [b,d,m,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3025 Relation: [b,d,m,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3026 Relation: [b,d,m,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.3027 Relation: [b,d,m,mi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.3028 Relation: [b,d,m,mi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3029 Relation: [b,d,m,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3030 Relation: [b,d,m,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.3031 Relation: [b,d,m,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3032 Relation: [b,d,m,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3033 Relation: [b,d,m,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3034 Relation: [b,d,m,o,s]

Complement relation.

$$[\overline{o_j} + \ell_j - \ell_i, +\infty[$$

1.3035 Relation: [b,d,m,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3036 Relation: [b,d,m,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ \overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3037 Relation: [b,d,m,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.3038 Relation: [b,d,m,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.3039 Relation: [b,d,m,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3040 Relation: [b,d,m,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3041 Relation: [b,d,m,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.3042 Relation: [b,d,m,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.3043 Relation: [b,d,m,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3044 Relation: [b,d,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \end{cases}$$

1.3051 Relation: [b,d,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.3052 **Relation:** [b,d,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - 1, \underline{o_j}] \cup [\underline{o_j} + \underline{\ell_j} - 1, \underline{o_j} + \underline{\ell_j} - 1] \cup [\underline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i < \underline{\ell_j} - 1 \wedge \ell_i = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \underline{\ell_j} - \ell_i, \underline{o_j} + \underline{\ell_j} - 1] \cup [\underline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i < \underline{\ell_j} - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - 1, \underline{o_j} + \underline{\ell_j} - 1] \cup [\underline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i \leq \underline{\ell_j} \wedge \ell_i \geq \underline{\ell_j} - 1 \wedge \ell_i = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j} + \underline{\ell_j} - 1] \cup [\underline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i \leq \underline{\ell_j} \wedge \ell_i \geq \underline{\ell_j} - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \underline{\ell_j} = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \underline{\ell_j} - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \underline{\ell_j} - 1] \cup [\underline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i > \underline{\ell_j} \wedge \underline{\ell_j} > 1 \end{array} \right.$$

1.3053 **Relation:** [b,d,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.3054 **Relation:** [b,d,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.3055 Relation: [b,d,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3056 Relation: [b,d,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, o_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3057 Relation: [b,d,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.3058 Relation: [b,d,mi,s,si]

Complement relation.

$$\begin{cases} [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\underline{\overline{o_j}} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - 1] \cup [\underline{\overline{o_j}} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - 1] \cup [\underline{\overline{o_j}} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\underline{\overline{o_j}} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\underline{\overline{o_j}} + 1, \underline{o_j} + \underline{\ell_j} - 1] \cup [\underline{\overline{o_j}} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3059 **Relation:** [b,d,mi,si]

Complement relation.

$$\begin{cases} [\underline{o_j} - \ell_i, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3060 Relation: [b,d,o]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{\overline{o_j}} - 1, \underline{o_j}] \cup [\overline{o_j} + \underline{\ell_j} - 1, +\infty[& \text{if } \ell_i < \underline{\ell_j} - 1 \wedge \ell_i = 1 \\ [\underline{\overline{o_j}} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{\overline{o_j}}, \underline{o_j}] \cup [\overline{o_j} + \underline{\ell_j} - \ell_i, +\infty[& \text{if } \ell_i < \underline{\ell_j} - 1 \wedge \ell_i > 1 \\ [\underline{\overline{o_j}} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{\overline{o_j}}, +\infty[& \text{if } \ell_i \leq \underline{\ell_j} \wedge \ell_i \geq \underline{\ell_j} - 1 \wedge \ell_i > 1 \\ [\underline{\overline{o_j}} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \underline{\ell_j} - \ell_i, +\infty[& \text{if } \ell_i > \underline{\ell_j} \wedge \ell_j > 1 \\ [\underline{\overline{o_j}} - \ell_i, +\infty[& \text{if } \ell_i \geq \underline{\ell_j} - 1 \wedge \min(\ell_i, \underline{\ell_j}) = 1 \end{array} \right.$$

1.3061 Relation: [b,d,o,oi]

Complement relation.

$$\begin{cases} [\underline{o_j} - 1, \underline{o_j}] \cup [\underline{o_j} + \underline{\ell_j} - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \underline{\ell_j} - \ell_i, \underline{o_j} + \underline{\ell_j} - \ell_i] \cup [\underline{o_j} + \underline{\ell_j}, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j} + 1] \cup [\underline{o_j} + \underline{\ell_j}, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \underline{\ell_j} - \ell_i, \underline{o_j}] \cup [\underline{o_j} + \underline{\ell_j}, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.3062 **Relation:** [b,d,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \overline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3063 Relation: [b,d,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.3064 Relation: [b,d,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.3065 Relation: [b,d,o,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_j > 1 \end{array} \right.$$

1.3066 Relation: [b,d,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.3067 Relation: [b,d,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.3068 Relation: [b,d,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.3069 Relation: [b,d,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.3070 Relation: [b,d,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3071 Relation: [b,d,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3072 Relation: [b,d,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.3073 Relation: [b,d,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3074 Relation: [b,d,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3075 Relation: [b,di]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.3076 Relation: [b,di,e]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.3077 Relation: [b,di,e,f]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.3078 Relation: [b,di,e,f,fi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3079 Relation: [b,di,e,f,fi,m]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3080 Relation: [b,di,e,f,fi,m,mi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.3081 Relation: [b,di,e,f,fi,m,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 2, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.3082 Relation: [b,di,e,f,fi,m,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.3083 Relation: [b,di,e,f,fi,m,mi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.3084 Relation: [b,di,e,f,fi,m,mi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \end{array} \right.$$

1.3085 Relation: [b,di,e,f,fi,m,mi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.3086 Relation: [b,di,e,f,fi,m,mi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.3087 **Relation:** [b,di,e,f,fi,m,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.3088 **Relation:** [b,di,e,f,fi,m,mi,o,si]

Complement relation.

$$\begin{cases} [\underline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\underline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\ [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.3089 **Relation:** [b,di,e,f,fi,m,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} + 2, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\underline{o_j}, \underline{o_j}] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3090 **Relation:** [b,di,e,f,fi,m,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.3091 **Relation:** [b,di,e,f,fi,m,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.3092 **Relation:** [b,di,e,f,fi,m,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, o_j + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j > 1 \end{cases}$$

1.3093 Relation: [b,di,e,f,fi,m,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.3094 Relation: [b,di,e,f,fi,m,mi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 2, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.3095 Relation: [b,di,e,f,fi,m,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.3096 Relation: [b,di,e,f,fi,m,o]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.3097 Relation: [b,di,e,f,fi,m,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.3098 Relation: [b,di,e,f,fi,m,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.3099 Relation: [b,di,e,f,fi,m,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \end{cases}$$

1.3100 Relation: [b,di,e,f,fi,m,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, o_j + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.3101 Relation: [b,di,e,f,fi,m,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3102 Relation: [b,di,e,f,fi,m,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.3103 Relation: [b,di,e,f,fi,m,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.3104 Relation: [b,di,e,f,fi,m,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3105 Relation: [b,di,e,f,fi,m,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3106 Relation: [b,di,e,f,fi,m,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.3107 Relation: [b,di,e,f,fi,m,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_j > 1 \end{array} \right.$$

1.3108 Relation: [b,di,e,f,fi,m,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.3109 Relation: [b,di,e,f,fi,m,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.3110 Relation: [b,di,e,f,fi,m,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.3111 Relation: [b,di,e,f,fi,mi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.3112 **Relation:** [b,di,e,f,fi,mi,o]

Complement relation.

$$\begin{cases} [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - 1, \underline{o_j} + \ell_j - 2] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3113 Relation: [b,di,e,f,fi,mi,o,oi]

Complement relation.

$$\begin{cases} [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - 1, \underline{o_j} + \ell_j - 2] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.3114 Relation: [b,di,e,f,fi,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3115 **Relation:** [b,di,e,f,fi,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \end{cases}$$

1.3116 Relation: [b,di,e,f,fi,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - 1, \underline{o_j} + \ell_j - 2] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.3117 **Relation:** [b,di,e,f,fi,mi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - 1, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.3118 Relation: [b,di,e,f,fi,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.3119 Relation: [b,di,e,f,fi,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.3120 Relation: [b,di,e,f,fi,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.3121 Relation: [b,di,e,f,fi,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.3122 Relation: [b,di,e,f,fi,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.3123 Relation: [b,di,e,f,fi,mi,oi,si]

Complement relation.

$$[\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[$$

Complement relation.

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, o_j - 1] \cup [\overline{o_j} + 1, o_j + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, o_j - 1] \cup [\overline{o_j} + 1, \overline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 1, o_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, o_j - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, o_j + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, o_j + \ell_j - \ell_i - 1] \cup [\overline{o_j}, o_j + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

Complement relation.

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{\overline{o}_j} - \ell_i, \underline{o_j} - 1] \cup [\underline{\overline{o}_j} + 1, \underline{o_j} + \ell_j - 2] \cup [\underline{\overline{o}_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{\overline{o}_j} - \ell_i, \underline{o_j} - 1] \cup [\underline{\overline{o}_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{\overline{o}_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{\overline{o}_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{\overline{o}_j} - \ell_i, \underline{o_j} - 1] \cup [\underline{\overline{o}_j} + 2, \underline{o_j} + \ell_j - 1] \cup [\underline{\overline{o}_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{\overline{o}_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{\overline{o}_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{\overline{o}_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\underline{\overline{o}_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{\overline{o}_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

Complement relation.

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, o_j + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, o_j + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, o_j + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

Complement relation.

Complement relation.

$$\begin{cases} [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - 1, \underline{o_j} + \ell_j - 2] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

Complement relation.

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

Complement relation.

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, o_j] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3130 Relation: [b,di,e,f,fi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \end{cases}$$

1.3131 Relation: [b,di,e,f,fi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.3132 Relation: [b,di,e,f,fi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3133 Relation: [b,di,e,f,fi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.3134 Relation: [b,di,e,f,fi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.3135 Relation: [b,di,e,f,fi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3136 Relation: [b,di,e,f,fi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3137 Relation: [b,di,e,f,fi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3138 Relation: [b,di,e,f,fi,oi,si]

Complement relation.

$$[\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[$$

1.3139 Relation: [b,di,e,f,fi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3140 Relation: [b,di,e,f,fi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3141 Relation: [b,di,e,f,fi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3142 Relation: [b,di,e,f,m]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.3143 Relation: [b,di,e,f,m,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.3144 Relation: [b,di,e,f,m,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + 2\ell_j - 2\ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.3145 Relation: [b,di,e,f,m,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.3146 Relation: [b,di,e,f,m,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.3147 Relation: [b,di,e,f,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3148 Relation: [b,di,e,f,m,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3159 Relation: [b,di,e,f,m,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + 2\ell_j - 2\ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.3160 Relation: [b,di,e,f,m,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.3161 Relation: [b,di,e,f,m,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - 2\ell_i + 3, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.3162 Relation: [b,di,e,f,m,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3163 Relation: [b,di,e,f,m,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3164 Relation: [b,di,e,f,m,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + 2\ell_j - 2\ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.3165 Relation: [b,di,e,f,m,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3166 Relation: [b,di,e,f,m,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3167 Relation: [b,di,e,f,m,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \neq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - 2\ell_i + 3, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + 2\ell_j - 2, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.3168 Relation: [b,di,e,f,m,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - 2\ell_i + 2, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.3169 Relation: [b,di,e,f,m,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - 2\ell_i + 3, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.3170 Relation: [b,di,e,f,m,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.3171 Relation: [b,di,e,f,m,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.3172 Relation: [b,di,e,f,m,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.3173 Relation: [b,di,e,f,m,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.3174 Relation: [b,di,e,f,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

Complement relation.

Complement relation.

1.3181 Relation: [b,di,e,f,mi,o,s,si]

Complement relation.

1.3182 Relation: [b,di,e,f,mi,o,si]

Complement relation.

1.3183 Relation: [b,di,e,f,mi,oi]

Complement relation.

1.3184 Relation: [b,di,e,f,mi,oi,s]

Complement relation.

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1.3185 Relation: [b,di,e,f,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.3186 Relation: [b,di,e,f,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3187 Relation: [b,di,e,f,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - 1, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [\underline{o_j} - 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.3188 **Relation:** [b,di,e,f,mi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{\overline{o}_j} - 1, \underline{o}_j - 1] \cup [\underline{\overline{o}_j} + 1, \underline{o}_j + \ell_j - \ell_i - 1] \cup [\underline{\overline{o}_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{\overline{o}_j} - \ell_i, \underline{o}_j - 1] \cup [\underline{\overline{o}_j} + 1, \underline{o}_j + \ell_j - \ell_i - 1] \cup [\underline{\overline{o}_j} + \ell_j - \ell_i + 1, \underline{o}_j + \ell_j - 1] \cup [\underline{\overline{o}_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{\overline{o}_j} - \ell_i, \underline{o}_j - 1] \cup [\underline{\overline{o}_j} + \ell_j - \ell_i + 1, \underline{o}_j + \ell_j - 1] \cup [\underline{\overline{o}_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{\overline{o}_j} - \ell_i, \underline{o}_j - \ell_i + 1] \cup [\underline{\overline{o}_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{\overline{o}_j} - \ell_i, \underline{o}_j + \ell_j - \ell_i] \cup [\underline{\overline{o}_j} + 1, \underline{o}_j + \ell_j - 1] \cup [\underline{\overline{o}_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\underline{\overline{o}_j} - \ell_i, \underline{o}_j - 1] \cup [\underline{\overline{o}_j} + 1, \underline{o}_j + \ell_j - 1] \cup [\underline{\overline{o}_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\underline{\overline{o}_j} - \ell_i, \underline{o}_j - 1] \cup [\underline{\overline{o}_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.3189 **Relation:** [b,di,e,f,mi,si]

Complement relation.

$$\begin{cases} [\underline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + \ell_j - 2] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.3190 Relation: [b,di,e,f,o]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 2\ell_j - 2\ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.3191 Relation: [b,di,e,f,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - 1, \underline{o_j} + \ell_j - 2] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} - 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\underline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.3192 Relation: [b,di,e,f,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i} - 1] \cup [\overline{o_j} + \underline{\ell_j}, +\infty[& \text{if } \underline{\ell_i} < \underline{\ell_j} - 1 \\ [\overline{o_j} - \underline{\ell_i}, +\infty[& \text{if } \underline{\ell_i} = \underline{\ell_j} + 1 \wedge \underline{\ell_j} = 1 \\ [\overline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \underline{\ell_j}, +\infty[& \text{if } \underline{\ell_i} = \underline{\ell_j} + 1 \wedge \underline{\ell_j} > 1 \\ [\overline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j}, +\infty[& \text{if } \underline{\ell_i} \leq \underline{\ell_j} \wedge \underline{\ell_i} \geq \underline{\ell_j} - 1 \\ [\overline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i} + 1] \cup [\overline{o_j}, +\infty[& \text{if } \underline{\ell_i} > \underline{\ell_j} + 1 \wedge \underline{\ell_j} = 1 \\ [\overline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \underline{\ell_j}, +\infty[& \text{if } \underline{\ell_i} > \underline{\ell_j} + 1 \wedge \underline{\ell_j} > 1 \end{array} \right.$$

1.3193 **Relation:** [b,di,e,f,o,oi,s,si]

Complement relation.

$$\begin{cases} [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\underline{\sigma_j} + 1, \underline{\sigma_j} + \ell_j - \ell_i - 1] \cup [\underline{\sigma_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\underline{\sigma_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\underline{\sigma_j} + \ell_j - \ell_i, \underline{\sigma_j} + \ell_j - \ell_i] \cup [\underline{\sigma_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i + 1] \cup [\underline{\sigma_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - 1] \cup [\underline{\sigma_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.3194 Relation: [b,di,e,f,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.3195 **Relation:** [b,di,e,f,o,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}], +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}], +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.3196 Relation: [b,di,e,f,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.3197 Relation: [b,di,e,f,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i} - 1] \cup [\underline{\overline{o_j}} + \underline{\ell_j} - \underline{\ell_i} + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - 2] \cup [\underline{\overline{o_j}} + \underline{\ell_j}, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i} + 1] \cup [\underline{\overline{o_j}} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.3198 Relation: [b,di,e,f,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \overline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \neq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \overline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \overline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \overline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \overline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.3199 Relation: [b,di,e,f,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\underline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j}] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\underline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.3200 Relation: [b,di,e,f,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.3201 Relation: [b,di,e,f,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3202 Relation: [b,di,e,f,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.3203 Relation: [b,di,e,f,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.3204 Relation: [b,di,e,f,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3205 Relation: [b,di,e,f,i]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3206 Relation: [b,di,e,fi,m]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.3207 Relation: [b,di,e,fi,m,mi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.3208 Relation: [b,di,e,fi,m,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \end{array} \right.$$

1.3209 Relation: [b,di,e,fi,m,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.3210 Relation: [b,di,e,fi,m,mi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.3211 Relation: [b,di,e,fi,m,mi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.3212 Relation: [b,di,e,fi,m,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.3213 Relation: [b,di,e,fi,m,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3214 Relation: [b,di,e,fi,m,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j > 1 \end{cases}$$

1.3215 Relation: [b,di,e,fi,m,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.3216 Relation: [b,di,e,fi,m,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3217 Relation: [b,di,e,fi,m,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3218 Relation: [b,di,e,fi,m,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.3219 Relation: [b,di,e,fi,m,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.3220 Relation: [b,di,e,fi,m,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3221 Relation: [b,di,e,fi,m,mi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3222 Relation: [b,di,e,fi,m,mi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.3223 Relation: [b,di,e,fi,m,o]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j}, +\infty[& \text{if } \ell_i \neq \ell_j \end{cases}$$

1.3224 Relation: [b,di,e,fi,m,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.3225 Relation: [b,di,e,fi,m,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3226 Relation: [b,di,e,fi,m,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.3227 Relation: [b,di,e,fi,m,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.3228 Relation: [b,di,e,fi,m,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3229 Relation: [b,di,e,fi,m,o,s,si]

Complement relation.

$$[\overline{o_j} + 1, +\infty[$$

1.3230 Relation: [b,di,e,fi,m,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.3231 Relation: [b,di,e,fi,m,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.3232 Relation: [b,di,e,fi,m,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3233 Relation: [b,di,e,fi,m,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.3234 Relation: [b,di,e,fi,m,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.3235 Relation: [b,di,e,fi,m,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3236 Relation: [b,di,e,fi,m,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3237 Relation: [b,di,e,fi,m,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.3238 Relation: [b,di,e,fi,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3239 Relation: [b,di,e,fi,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.3240 Relation: [b,di,e,fi,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3241 Relation: [b,di,e,fi,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3242 Relation: [b,di,e,fi,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.3243 Relation: [b,di,e,fi,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.3244 Relation: [b,di,e,fi,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3245 Relation: [b,di,e,fi,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j > 1 \end{cases}$$

1.3246 Relation: [b,di,e,fi,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.3247 Relation: [b,di,e,fi,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3248 Relation: [b,di,e,fi,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3249 Relation: [b,di,e,fi,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.3250 Relation: [b,di,e,fi,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.3251 Relation: [b,di,e,fi,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3252 Relation: [b,di,e,fi,mi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3253 Relation: [b,di,e,fi,mi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.3254 Relation: [b,di,e,fi,o]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.3255 Relation: [b,di,e,fi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3256 Relation: [b,di,e,fi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - 1, \underline{o_j} - 1] \cup [\underline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.3257 **Relation:** [b,di,e,fi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.3258 Relation: [b,di,e,fi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, o_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.3259 **Relation:** [b,di,e,fi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3260 Relation: [b,di,e,fi,o,s,si]

Complement relation.

$$[\overline{o_j} - \ell_i, o_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[$$

1.3261 Relation: [b,di,e,fi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, o_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.3262 **Relation:** [b,di,e,fi,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.3263 Relation: [b,di,e,fi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3264 Relation: [b,di,e,fi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.3265 Relation: [b,di,e,fi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.3266 Relation: [b,di,e,fi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3267 Relation: [b,di,e,fi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3268 Relation: [b,di,e,fi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.3269 Relation: [b,di,e,m]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.3270 Relation: [b,di,e,m,mi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.3271 Relation: [b,di,e,m,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + 2\ell_j - 2\ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.3272 Relation: [b,di,e,m,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.3273 Relation: [b,di,e,m,mi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.3274 Relation: [b,di,e,m,mi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.3275 Relation: [b,di,e,m,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3276 Relation: [b,di,e,m,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.3277 Relation: [b,di,e,m,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3278 Relation: [b,di,e,m,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3279 Relation: [b,di,e,m,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_j + \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.3280 Relation: [b,di,e,m,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_j + \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.3281 Relation: [b,di,e,m,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.3282 Relation: [b,di,e,m,mi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \end{array} \right.$$

1.3283 Relation: [b,di,e,m,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 2\ell_i + 3, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.3284 Relation: [b,di,e,m,mi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} - 2\ell_i + 3, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.3285 Relation: [b,di,e,m,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.3286 Relation: [b,di,e,m,o]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + 2\ell_j - 2\ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.3287 Relation: [b,di,e,m,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.3288 Relation: [b,di,e,m,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - 2\ell_i + 3, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.3289 Relation: [b,di,e,m,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.3290 Relation: [b,di,e,m,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.3291 Relation: [b,di,e,m,o,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.3292 Relation: [b,di,e,m,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.3293 Relation: [b,di,e,m,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3294 Relation: [b,di,e,m,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - 2\ell_i + 3, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_j + \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.3295 Relation: [b,di,e,m,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 2\ell_i + 3, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_j + \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.3296 Relation: [b,di,e,m,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.3297 Relation: [b,di,e,m,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.3298 Relation: [b,di,e,m,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.3299 Relation: [b,di,e,m,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.3300 Relation: [b,di,e,m,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.3301 Relation: [b,di,e,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_j + \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.3302 Relation: [b,di,e,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_j + \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 2\ell_j - 2\ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.3303 Relation: [b,di,e,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.3309 Relation: [b,di,e,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.3310 Relation: [b,di,e,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_j + \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.3311 Relation: [b,di,e,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_j + \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.3312 Relation: [b,di,e,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.3313 Relation: [b,di,e,mi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \end{array} \right.$$

1.3314 Relation: [b,di,e,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_j + \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.3315 **Relation:** [b,di,e,mi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.3316 Relation: [b,di,e,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} + \ell_j - 1] \cup [\overline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - 1] \cup [\overline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i + 1] \cup [\overline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} + \ell_j - \ell_i] \cup [\overline{\sigma_j} + 1, \underline{\sigma_j} + \ell_j - 1] \cup [\overline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - 1] \cup [\overline{\sigma_j} + 1, \sigma_j + \ell_j - 1] \cup [\overline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.3317 Relation: [b,di,e,o]

Complement relation.

$$\begin{cases} [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, o_j + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.3318 Relation: [b,di,e,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.3319 Relation: [b,di,e,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{\overline{o_j}} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{\overline{o_j}} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{\overline{o_j}} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\underline{\overline{o_j}} - 1, \underline{o_j} - 1] \cup [\underline{\overline{o_j}} + 1, +\infty[& \text{if } \ell_i = 1 \\ [\underline{\overline{o_j}} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{\overline{o_j}} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\underline{\overline{o_j}} - \ell_i, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{\overline{o_j}} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{\overline{o_j}} - 1, \underline{o_j}] \cup [\underline{\overline{o_j}} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\underline{\overline{o_j}} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\underline{\overline{o_j}}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{\overline{o_j}} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{\overline{o_j}} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{\overline{o_j}}, \underline{o_j}] \cup [\underline{\overline{o_j}} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.3320 Relation: [b,di,e,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.3321 Relation: [b,di,e,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.3322 Relation: [b,di,e,o,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.3323 Relation: [b,di,e,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.3324 Relation: [b,di,e,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.3325 Relation: [b,di,e,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.3326 Relation: [b,di,e,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_j + \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.3327 Relation: [b,di,e,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.3328 Relation: [b,di,e,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.3329 Relation: [b,di,e,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.3330 Relation: [b,di,e,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.3331 Relation: [b,di,e,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3332 Relation: [b,di,f]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.3333 Relation: [b,di,f,fi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3334 Relation: [b,di,f,fi,m]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3335 Relation: [b,di,f,fi,m,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.3336 Relation: [b,di,f,fi,m,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.3337 Relation: [b,di,f,fi,m,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \end{cases}$$

1.3338 Relation: [b,di,f,fi,m,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.3339 Relation: [b,di,f,fi,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \end{cases}$$

1.3340 Relation: [b,di,f,fi,m,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3341 Relation: [b,di,f,fi,m,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.3342 Relation: [b,di,f,fi,m,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.3343 Relation: [b,di,f,fi,m,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + 2, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.3344 Relation: [b,di,f,fi,m,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.3345 Relation: [b,di,f,fi,m,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_j + \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.3346 Relation: [b,di,f,fi,m,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.3347 Relation: [b,di,f,fi,m,mi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.3348 Relation: [b,di,f,fi,m,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.3349 Relation: [b,di,f,fi,m,mi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.3350 Relation: [b,di,f,fi,m,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + 2, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.3351 Relation: [b,di,f,fi,m,o]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j}, +\infty[& \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.3352 Relation: [b,di,f,fi,m,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \end{array} \right.$$

1.3353 Relation: [b,di,f,fi,m,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.3354 Relation: [b,di,f,fi,m,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \end{cases}$$

1.3355 Relation: [b,di,f,fi,m,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3356 Relation: [b,di,f,fi,m,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.3357 Relation: [b,di,f,fi,m,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + 2\ell_j - 2\ell_i, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3358 Relation: [b,di,f,fi,m,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j}, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3359 Relation: [b,di,f,fi,m,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3360 **Relation:** [b,di,f,fi,m,oi,s]

Complement relation.

$$\begin{cases} [\underline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i + 1, \underline{o_j} - \ell_j + \ell_i] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\underline{o_j} + 2\ell_j - 2, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.3361 Relation: [b,di,f,fi,m,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + 2\ell_j - 2\ell_i, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_j + \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.3362 **Relation:** [b,di,f,fi,m,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \overline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, o_j + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3363 Relation: [b,di,f,fi,m,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + 2\ell_j - 2, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.3364 Relation: [b,di,f,fi,m,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.3365 Relation: [b,di,f,fi,m,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3366 Relation: [b,di,f,fi,mi]

Complement relation.

$$\begin{cases} [\underline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3367 Relation: [b,di,f,fi,mi,o]

Complement relation.

$$\begin{cases} [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{o_j} - 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.3368 **Relation:** [b,di,f,fi,mi,o,oi]

Complement relation.

$$\begin{cases} [\underline{o_j} - 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \overline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \end{cases}$$

1.3369 Relation: [b,di,f,fi,mi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} - \ell_j + \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, o_j] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.3370 **Relation:** [b,di,f,fi,mi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - 1, \underline{o_j} - \ell_j + \ell_i] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.3382 Relation: [b,di,f,fi,o]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.3383 Relation: [b,di,f,fi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.3384 Relation: [b,di,f,fi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.3385 Relation: [b,di,f,fi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \end{cases}$$

1.3386 Relation: [b,di,f,fi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.3387 Relation: [b,di,f,fi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.3388 Relation: [b,di,f,fi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 2\ell_j - 2\ell_i, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3389 Relation: [b,di,f,fi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3390 Relation: [b,di,f,fi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3391 Relation: [b,di,f,fi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_j + \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3392 Relation: [b,di,f,fi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_j + \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3393 Relation: [b,di,f,fi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \end{cases}$$

1.3394 Relation: [b,di,f,fi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3395 Relation: [b,di,f,fi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3396 Relation: [b,di,f,fi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3397 Relation: [b,di,f,m]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.3398 Relation: [b,di,f,m,mi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.3399 Relation: [b,di,f,m,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.3400 Relation: [b,di,f,m,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.3401 Relation: [b,di,f,m,mi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.3402 Relation: [b,di,f,m,mi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.3403 Relation: [b,di,f,m,mi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.3404 Relation: [b,di,f,m,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.3405 Relation: [b,di,f,m,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 2\ell_i + 3, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.3406 **Relation:** [b,di,f,m,mi,o,si]

Complement relation.

$$\begin{cases} [\underline{\overline{o_j}}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{\overline{o_j}} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{\overline{o_j}} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\underline{\overline{o_j}}, \underline{o_j} + \ell_j - 1] \cup [\underline{\overline{o_j}} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\underline{\overline{o_j}} - \ell_i + 1, \underline{o_j} + \ell_j - 2] \cup [\underline{\overline{o_j}} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\underline{\overline{o_j}} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{\overline{o_j}} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{\overline{o_j}} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\underline{\overline{o_j}} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{\overline{o_j}} + 2, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{cases}$$

1.3407 **Relation:** [b,di,f,m,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.3408 **Relation:** [b,di,f,m,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.3414 Relation: [b,di,f,m,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.3415 Relation: [b,di,f,m,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.3416 Relation: [b,di,f,m,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.3417 Relation: [b,di,f,m,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.3418 Relation: [b,di,f,m,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3419 Relation: [b,di,f,m,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.3420 Relation: [b,di,f,m,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + 2\ell_j - 2\ell_i, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3421 Relation: [b,di,f,m,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j}, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3422 Relation: [b,di,f,m,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + 2\ell_j - 2, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_j \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.3423 Relation: [b,di,f,m,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} + 2\ell_j - \ell_i - 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.3424 Relation: [b,di,f,m,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + 2\ell_j - 2\ell_i, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - 2\ell_i + 3, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.3425 Relation: [b,di,f,m,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3426 Relation: [b,di,f,m,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + 2\ell_j - 2\ell_i, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.3427 Relation: [b,di,f,m,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3428 Relation: [b,di,f,m,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3429 Relation: [b,di,f,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

Complement relation.

Complement relation.

1.3431 Relation: [b,di,f,mi,o,oi]

Complement relation.

1.3432 Relation: [b,di,f,mi,o,oi,s]

Complement relation.

1.3433 Relation: [b,di,f,mi,o,oi,s,si]

Complement relation.

1.3434 Relation: [b,di,f,mi,o,oi,si]

Complement relation.

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1.3445 **Relation:** [b,di,f,o]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \overline{o_j} - 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ \overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ \overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ \overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ \overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.3446 Relation: [b,di,f,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{\overline{o}_j} - \underline{\ell}_i, \underline{o}_j - \underline{\ell}_i] \cup [\underline{\overline{o}_j}, \underline{o}_j + \underline{\ell}_j - \underline{\ell}_i - 1] \cup [\underline{\overline{o}_j} + \underline{\ell}_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{\overline{o}_j} - 1, \underline{o}_j + \underline{\ell}_j - \underline{\ell}_i - 1] \cup [\underline{\overline{o}_j} + \underline{\ell}_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\underline{\overline{o}_j} - \underline{\ell}_i, \underline{o}_j - \underline{\ell}_i] \cup [\underline{\overline{o}_j} - 1, \underline{o}_j] \cup [\underline{\overline{o}_j} + \underline{\ell}_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\underline{\overline{o}_j} - \underline{\ell}_i, \underline{o}_j - \underline{\ell}_i] \cup [\underline{\overline{o}_j}, \underline{o}_j] \cup [\underline{\overline{o}_j} + \underline{\ell}_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{\overline{o}_j} - \underline{\ell}_i, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{\overline{o}_j} - \underline{\ell}_i, \underline{o}_j - \underline{\ell}_i + 1] \cup [\underline{\overline{o}_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{\overline{o}_j} - \underline{\ell}_i, \underline{o}_j - \underline{\ell}_i] \cup [\underline{\overline{o}_j} + \underline{\ell}_j - \underline{\ell}_i, \underline{o}_j + \underline{\ell}_j - \underline{\ell}_i] \cup [\underline{\overline{o}_j}, \underline{o}_j] \cup [\underline{\overline{o}_j} + \underline{\ell}_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.3447 Relation: [b,di,f,o,oi,s]

Complement relation.

$$\begin{cases} [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\underline{o_j} - \ell_i, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\underline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.3448 Relation: [b,di,f,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{\overline{o_j}} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{\overline{o_j}} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{\overline{o_j}} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\underline{\overline{o_j}} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\underline{\overline{o_j}} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{\overline{o_j}} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{\overline{o_j}} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\underline{\overline{o_j}} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{\overline{o_j}} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{\overline{o_j}} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{\overline{o_j}} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\underline{\overline{o_j}} - \ell_i, \underline{o_j} - 1] \cup [\underline{\overline{o_j}} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.3449 **Relation:** [b,di,f,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.3450 Relation: [b,di,f,o,s]

Complement relation.

$$\begin{cases} [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\underline{o_j} - \ell_i, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\underline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.3451 Relation: [b,di,f,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ \overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 2\ell_j - 2\ell_i, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ \overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ \overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, o_j + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.3452 Relation: [b,di,f,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}], +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ \overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ \overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{cases}$$

1.3453 **Relation:** [b,di,f,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.3454 Relation: [b,di,f,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.3455 Relation: [b,di,f,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \end{array} \right.$$

1.3456 Relation: [b,di,f,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.3457 Relation: [b,di,f,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.3458 Relation: [b,di,f,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.3459 Relation: [b,di,f,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.3460 Relation: [b,di,fi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3461 Relation: [b,di,fi,m]

Complement relation.

$$\begin{cases} [\overline{o_j}, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3462 Relation: [b,di,fi,m,mi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3463 Relation: [b,di,fi,m,mi,o]

Complement relation.

$$[\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[$$

1.3464 Relation: [b,di,fi,m,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.3465 Relation: [b,di,fi,m,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.3466 Relation: [b,di,fi,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3467 Relation: [b,di,fi,m,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3468 Relation: [b,di,fi,m,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.3469 Relation: [b,di,fi,m,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3470 Relation: [b,di,fi,m,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3471 Relation: [b,di,fi,m,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3472 Relation: [b,di,fi,m,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3473 Relation: [b,di,fi,m,mi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.3474 Relation: [b,di,fi,m,mi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.3475 Relation: [b,di,fi,m,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.3476 Relation: [b,di,fi,m,mi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.3477 Relation: [b,di,fi,m,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.3478 Relation: [b,di,fi,m,o]

Complement relation.

$$[\overline{o_j}, +\infty[$$

1.3479 Relation: [b,di,fi,m,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.3480 Relation: [b,di,fi,m,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.3481 Relation: [b,di,fi,m,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.3482 Relation: [b,di,fi,m,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3483 Relation: [b,di,fi,m,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j}, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.3484 Relation: [b,di,fi,m,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \neq \ell_j \end{cases}$$

1.3485 Relation: [b,di,fi,m,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3486 Relation: [b,di,fi,m,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3487 Relation: [b,di,fi,m,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3488 Relation: [b,di,fi,m,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.3489 Relation: [b,di,fi,m,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3490 Relation: [b,di,fi,m,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3491 Relation: [b,di,fi,m,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.3492 Relation: [b,di,fi,m,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3493 Relation: [b,di,fi,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3494 Relation: [b,di,fi,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \end{cases}$$

1.3495 Relation: [b,di,fi,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.3496 Relation: [b,di,fi,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.3497 Relation: [b,di,fi,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3498 Relation: [b,di,fi,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3499 Relation: [b,di,fi,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.3500 Relation: [b,di,fi,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3501 Relation: [b,di,fi,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3502 Relation: [b,di,fi,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3503 Relation: [b,di,fi,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3504 Relation: [b,di,fi,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3505 Relation: [b,di,fi,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3506 Relation: [b,di,fi,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3507 Relation: [b,di,fi,mi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3508 Relation: [b,di,fi,mi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3509 Relation: [b,di,fi,o]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \end{cases}$$

1.3510 Relation: [b,di,fi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.3511 Relation: [b,di,fi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.3512 Relation: [b,di,fi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.3513 Relation: [b,di,fi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.3514 Relation: [b,di,fi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.3515 Relation: [b,di,fi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \neq \ell_j \end{array} \right.$$

1.3516 Relation: [b,di,fi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.3517 Relation: [b,di,fi,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.3518 Relation: [b,di,fi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3519 Relation: [b,di,fi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.3520 Relation: [b,di,fi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3521 Relation: [b,di,fi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3522 Relation: [b,di,fi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3523 Relation: [b,di,fi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3524 Relation: [b,di,m]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.3525 Relation: [b,di,m,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.3526 Relation: [b,di,m,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.3527 Relation: [b,di,m,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.3528 Relation: [b,di,m,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.3529 Relation: [b,di,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.3530 Relation: [b,di,m,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3531 Relation: [b,di,m,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.3532 Relation: [b,di,m,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3533 Relation: [b,di,m,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3534 Relation: [b,di,m,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.3535 Relation: [b,di,m,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.3536 Relation: [b,di,m,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.3537 Relation: [b,di,m,mi,oi,si]

Complement relation.

$$[\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[$$

1.3538 Relation: [b,di,m,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.3539 Relation: [b,di,m,mi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - 2\ell_i + 3, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.3540 Relation: [b,di,m,mi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3541 Relation: [b,di,m,o]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.3542 Relation: [b,di,m,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.3543 Relation: [b,di,m,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.3544 Relation: [b,di,m,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.3545 Relation: [b,di,m,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3546 Relation: [b,di,m,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.3547 Relation: [b,di,m,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j}, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3548 Relation: [b,di,m,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3549 Relation: [b,di,m,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.3550 Relation: [b,di,m,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.3551 Relation: [b,di,m,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.3552 Relation: [b,di,m,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > 1 \end{array} \right.$$

1.3553 Relation: [b,di,m,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.3554 Relation: [b,di,m,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.3555 Relation: [b,di,m,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i + 1, o_j + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3556 Relation: [b,di,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \\ [\overline{o_j} - \ell_i, o_j + \ell_j - \ell_i] \cup [\overline{o_j}, o_j + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.3557 Relation: [b,di,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\overline{\sigma_j} - 1, \underline{\sigma_j} + \ell_j - 1] \cup [\overline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\overline{\sigma_j}, \underline{\sigma_j} - \ell_j - 1] \cup [\overline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{\sigma_j} - \ell_i, \underline{\sigma_j} + \ell_j - 1] \cup [\overline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i + 1] \cup [\overline{\sigma_j}, \underline{\sigma_j}] \cup [\overline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\overline{\sigma_j} + \ell_j - \ell_i, \underline{\sigma_j} + \ell_j - \ell_i] \cup [\overline{\sigma_j}, \underline{\sigma_j} + \ell_j - 1] \cup [\overline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.3558 Relation: [b,di,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\underline{\sigma_j} - 1, \underline{\sigma_j}] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\underline{\sigma_j}, \underline{\sigma_j} + \ell_j - \ell_i] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} + \ell_j - 1] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i + 1] \cup [\underline{\sigma_j}, \underline{\sigma_j}] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\underline{\sigma_j} + \ell_j - \ell_i, \underline{\sigma_j} + \ell_j - \ell_i] \cup [\underline{\sigma_j}, \underline{\sigma_j}] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.3559 **Relation:** [b,di,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.3560 Relation: [b,di,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.3561 Relation: [b,di,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3562 **Relation:** [b,di,mi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\underline{\sigma_j} + 1, \underline{\sigma_j} + \ell_j - 1] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j}] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i + 1] \cup [\underline{\sigma_j}, \underline{\sigma_j}] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\underline{\sigma_j} + \ell_j - \ell_i, \underline{\sigma_j} + \ell_j - \ell_i] \cup [\underline{\sigma_j}, \underline{\sigma_j} + \ell_j - 1] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\underline{\sigma_j} + \ell_j - \ell_i, \underline{\sigma_j} + \ell_j - 1] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.3563 **Relation:** [b,di,mi,o,s,si]

Complement relation.

$$\begin{cases} [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3564 **Relation:** [b,di,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, o_j + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq o_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, o_j - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, o_j + \ell_j - \ell_i] \cup [\overline{o_j} + 1, o_j + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3565 Relation: [b,di,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.3566 Relation: [b,di,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.3567 Relation: [b,di,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.3568 Relation: [b,di,mi,oi,si]

Complement relation.

$$[\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[$$

1.3569 Relation: [b,di,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.3570 Relation: [b,di,mi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.3571 Relation: [b,di,mi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3572 Relation: [b,di,o]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.3573 **Relation:** [b,di,o,oi]

Complement relation.

$$\begin{cases} [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} - 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\underline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.3574 Relation: [b,di,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\overline{\sigma_j} + 1, \underline{\sigma_j} + \ell_j - \ell_i] \cup [\overline{\sigma_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{\sigma_j} - 1, \underline{\sigma_j} - 1] \cup [\overline{\sigma_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{\sigma_j} - \ell_i, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i + 1] \cup [\overline{\sigma_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\overline{\sigma_j} + \ell_j - \ell_i, \underline{\sigma_j} + \ell_j - \ell_i] \cup [\overline{\sigma_j}, \underline{\sigma_j}] \cup [\overline{\sigma_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\overline{\sigma_j} + \ell_j - \ell_i, \underline{\sigma_j}] \cup [\overline{\sigma_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.3575 **Relation:** [b,di,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.3576 Relation: [b,di,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.3577 Relation: [b,di,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i < \ell_j \\ \overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.3578 Relation: [b,di,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\underline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\underline{o_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.3579 Relation: [b,di,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3580 Relation: [b,di,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \underline{\ell}_i, \underline{o_j} + \underline{\ell}_j - \underline{\ell}_i] \cup [\overline{o_j} + \underline{\ell}_j, +\infty[& \text{if } \underline{\ell}_i < \underline{\ell}_j \wedge \underline{\ell}_i > 1 \\ [\overline{o_j} - \underline{\ell}_i, +\infty[& \text{if } \underline{\ell}_i \leq \underline{\ell}_j + 1 \wedge \min(\underline{\ell}_i, \underline{\ell}_j) = 1 \\ [\overline{o_j} - \underline{\ell}_i, \underline{o_j} - \underline{\ell}_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \underline{\ell}_i > \underline{\ell}_j + 1 \wedge \underline{\ell}_j = 1 \\ [\overline{o_j} - \underline{\ell}_i, \underline{o_j} + \underline{\ell}_j - \underline{\ell}_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \underline{\ell}_j, +\infty[& \text{if } \underline{\ell}_i > \underline{\ell}_j + 1 \wedge \underline{\ell}_j > 1 \\ [\overline{o_j} - \underline{\ell}_i, \underline{o_j}] \cup [\overline{o_j} + \underline{\ell}_j, +\infty[& \text{if } \underline{\ell}_i \geq \underline{\ell}_j \wedge \underline{\ell}_i \leq \underline{\ell}_j + 1 \wedge \underline{\ell}_i > 1 \wedge \underline{\ell}_j > 1 \end{array} \right.$$

1.3581 **Relation:** [b,di,oi,s]

Complement relation.

$$\begin{cases} [\underline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - 1, \underline{o_j} - 1] \cup [\underline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\underline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j}] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.3582 Relation: [b,di,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i + 1] \cup [\underline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.3583 Relation: [b,di,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > 1 \end{cases}$$

1.3584 Relation: [b,di,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.3585 Relation: [b,di,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i < \ell_j \\ \begin{cases} [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases} \end{cases}$$

1.3586 Relation: [b,di,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3587 Relation: [b,e]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i \neq \ell_j \end{cases}$$

1.3588 Relation: [b,e,f]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3589 Relation: [b,e,f,fi]

Complement relation.

$$[\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[$$

1.3590 Relation: [b,e,f,fi,m]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_j > 1 \end{cases}$$

1.3591 Relation: [b,e,f,fi,m,mi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.3592 Relation: [b,e,f,fi,m,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.3593 Relation: [b,e,f,fi,m,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.3594 Relation: [b,e,f,fi,m,mi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.3595 Relation: [b,e,f,fi,m,mi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.3596 Relation: [b,e,f,fi,m,mi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.3607 Relation: [b,e,f,fi,m,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.3608 Relation: [b,e,f,fi,m,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3609 Relation: [b,e,f,fi,m,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 2, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3610 Relation: [b,e,f,fi,m,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.3611 Relation: [b,e,f,fi,m,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.3612 Relation: [b,e,f,fi,m,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \end{cases}$$

1.3613 Relation: [b,e,f,fi,m,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.3614 Relation: [b,e,f,fi,m,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.3615 Relation: [b,e,f,fi,m,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3616 Relation: [b,e,f,fi,m,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.3617 Relation: [b,e,f,fi,m,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 2, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.3618 Relation: [b,e,f,fi,m,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.3619 Relation: [b,e,f,fi,m,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.3620 Relation: [b,e,f,fi,m,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{\sigma_j} - \ell_i + 1, \underline{\sigma_j} - 1] \cup [\underline{\sigma_j} + 1, \underline{\sigma_j} + \ell_j - \ell_i - 1] \cup [\underline{\sigma_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{\sigma_j} - \ell_i + 1, \underline{\sigma_j} - 1] \cup [\underline{\sigma_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{\sigma_j} - \ell_i + 1, \underline{\sigma_j} + \ell_j - \ell_i - 1] \cup [\underline{\sigma_j} + \ell_j - \ell_i + 1, \underline{\sigma_j} - 1] \cup [\underline{\sigma_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\underline{\sigma_j} - \ell_i + 1, \underline{\sigma_j} + \ell_j - \ell_i - 1] \cup [\underline{\sigma_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\underline{\sigma_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\underline{\sigma_j} - \ell_i + 2, \sigma_j + \ell_j - 2] \cup [\underline{\sigma_j} + \ell_j, +\infty[& \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.3621 Relation: [b,e,f,fi,m,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.3622 Relation: [b,e,f,fi,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \end{cases}$$

1.3623 **Relation:** [b,e,f,fi,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.3624 **Relation:** [b,e,f,fi,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.3637 Relation: [b,e,f,fi,mi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, o_j + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, o_j + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, o_j + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, o_j + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.3638 Relation: [b,e,f,fi,o]

Complement relation.

$$\begin{cases} [\overline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\overline{\sigma_j}, \underline{\sigma_j} + \ell_j - \ell_i - 1] \cup [\overline{\sigma_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{\sigma_j} - 1, \underline{\sigma_j} + \ell_j - 2] \cup [\overline{\sigma_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \\ [\overline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\overline{\sigma_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.3639 Relation: [b,e,f,fi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, o_j - \ell_i] \cup [\overline{o_j}, o_j + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, o_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, o_j + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, o_j - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, o_j] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, o_j - \ell_i] \cup [\overline{o_j}, o_j] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.3640 Relation: [b,e,f,fi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.3641 Relation: [b,e,f,fi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [o_j + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, o_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.3642 Relation: [b,e,f,fi,o,oi,si]

Complement relation.

$$\begin{cases} [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.3643 **Relation:** [b,e,f,fi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \end{cases}$$

1.3644 Relation: [b,e,f,fi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + 1, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i} - 1] \cup [\underline{\overline{o_j}} + \underline{\ell_j} - \underline{\ell_i} + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + \underline{\ell_j} - \underline{\ell_i} + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{\overline{o_j}} - 1, \underline{o_j} - 1] \cup [\underline{\overline{o_j}} + \underline{\ell_j}, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j} - 1] \cup [\underline{\overline{o_j}} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.3645 **Relation:** [b,e,f,fi,o,si]

Complement relation.

$$\begin{cases} [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i} - 1] \cup [\underline{\overline{o_j}} + \underline{\ell_j} - \underline{\ell_i} + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\underline{\overline{o_j}} - 1, \underline{o_j} + \underline{\ell_j} - 2] \cup [\underline{\overline{o_j}} + \underline{\ell_j}, +\infty[& \text{if } \ell_i = 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j} - 1] \cup [\underline{\overline{o_j}} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.3646 Relation: [b,e,f,fi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} - \ell_i + 2, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3647 Relation: [b,e,f,fi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \underline{\ell}_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \underline{\ell}_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \underline{\ell}_i, \underline{o_j} - \underline{\ell}_i] \cup [\overline{o_j} - \underline{\ell}_i + 2, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \underline{\ell}_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \underline{\ell}_i, \underline{o_j} + \ell_j - \underline{\ell}_i - 1] \cup [\overline{o_j} + \ell_j - \underline{\ell}_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3648 **Relation:** [b,e,f,fi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.3649 Relation: [b,e,f,fi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.3650 Relation: [b,e,f,fi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.3651 Relation: [b,e,f,fi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.3652 Relation: [b,e,f,fi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.3653 Relation: [b,e,f,m]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3654 Relation: [b,e,f,m,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3655 Relation: [b,e,f,m,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 2, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.3656 Relation: [b,e,f,m,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.3657 Relation: [b,e,f,m,mi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.3658 Relation: [b,e,f,m,mi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.3659 Relation: [b,e,f,m,mi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.3660 Relation: [b,e,f,m,mi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.3661 Relation: [b,e,f,m,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3662 **Relation:** [b,e,f,m,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.3663 Relation: [b,e,f,m,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \overline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \neq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \overline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \end{cases}$$

1.3664 Relation: [b,e,f,m,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.3665 **Relation:** [b,e,f,m,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \end{cases}$$

1.3666 Relation: [b,e,f,m,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.3667 Relation: [b,e,f,m,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.3668 **Relation:** [b,e,f,m,mi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.3669 Relation: [b,e,f,m,mi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ \overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.3670 **Relation:** [b,e,f,m,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \overline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3671 Relation: [b,e,f,m,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3672 Relation: [b,e,f,m,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ \overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ \overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3673 Relation: [b,e,f,m,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3674 Relation: [b,e,f,m,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3675 Relation: [b,e,f,m,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3676 Relation: [b,e,f,m,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3677 Relation: [b,e,f,m,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3678 Relation: [b,e,f,m,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \neq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3679 Relation: [b,e,f,m,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, o_j] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.3680 **Relation:** [b,e,f,m,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \end{cases}$$

1.3681 Relation: [b,e,f,m,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, o_j + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, o_j - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.3682 Relation: [b,e,f,m,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{\sigma_j} + 1, \underline{\sigma_j} + \ell_j - \ell_i - 1] \cup [\overline{\sigma_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{\sigma_j} - \ell_i + 1, \underline{\sigma_j} - 1] \cup [\overline{\sigma_j} + 1, \underline{\sigma_j} + \ell_j - \ell_i - 1] \cup [\overline{\sigma_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{\sigma_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{\sigma_j} - \ell_i + 1, \underline{\sigma_j} - 1] \cup [\overline{\sigma_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{\sigma_j} - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.3683 **Relation:** [b,e,f,m,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.3684 Relation: [b,e,f,m,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.3685 **Relation:** [b,e,f,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3686 Relation: [b,e,f,mi,o]

Complement relation.

$$\begin{cases} [\underline{\sigma_j} - \underline{\ell_i}, \underline{\sigma_j} - \underline{\ell_i}] \cup [\underline{\sigma_j}, \underline{\sigma_j} + \underline{\ell_j} - \underline{\ell_i} - 1] \cup [\underline{\sigma_j} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{\sigma_j} + \underline{\ell_j} - 1] \cup [\underline{\sigma_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\underline{\sigma_j} - \underline{\ell_i}, \underline{\sigma_j} + \underline{\ell_j} - 2] \cup [\underline{\sigma_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i = 1 \\ [\underline{\sigma_j} - \underline{\ell_i}, \underline{\sigma_j} - \underline{\ell_i}] \cup [\underline{\sigma_j} + 1, \underline{\sigma_j} + \underline{\ell_j} - 1] \cup [\underline{\sigma_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\underline{\sigma_j} - \underline{\ell_i}, \underline{\sigma_j}] \cup [\underline{\sigma_j} + 2, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\underline{\sigma_j} - \underline{\ell_i}, \underline{\sigma_j} - \underline{\ell_i}] \cup [\underline{\sigma_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{\sigma_j} + \underline{\ell_j} - 1] \cup [\underline{\sigma_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3687 Relation: [b,e,f,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.3688 Relation: [b,e,f,mi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, o_j] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.3689 Relation: [b,e,f,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + 1, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i} - 1] \cup [\underline{\overline{o_j}} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\underline{\overline{o_j}} + 2, +\infty[& \text{if } \ell_j = 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i \leq \underline{\ell_j} \wedge \underline{o_j} \geq \underline{\ell_j} - 1 \wedge \underline{\ell_j} > 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\underline{\overline{o_j}} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i > \underline{\ell_j} \wedge \underline{\ell_j} > 1 \end{cases}$$

1.3690 Relation: [b,e,f,mi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i} - 1] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \underline{\ell_i} < \underline{\ell_j} \wedge \underline{\ell_i} > 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \underline{\ell_i} = \underline{\ell_j} \wedge \underline{\ell_i} > 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - 2] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \min(\underline{\ell_i}, \underline{\ell_j}) = 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \underline{\ell_i} > \underline{\ell_j} \wedge \underline{\ell_j} > 1 \end{array} \right.$$

1.3691 Relation: [b,e,f,mi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 2] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j}] \cup [\underline{o_j} + 2, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.3692 **Relation:** [b,e,f,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{\sigma_j} - 1, \underline{\sigma_j} - 1] \cup [\underline{\sigma_j} + 1, \underline{\sigma_j} + \ell_j - \ell_i - 1] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\underline{\sigma_j} + 1, \underline{\sigma_j} + \ell_j - \ell_i - 1] \cup [\underline{\sigma_j} + \ell_j - \ell_i + 1, \underline{\sigma_j} + \ell_j - 1] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\underline{\sigma_j} + \ell_j - \ell_i + 1, \underline{\sigma_j} + \ell_j - 1] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\underline{\sigma_j} + \ell_j - \ell_i, \underline{\sigma_j} - 1] \cup [\underline{\sigma_j} + 1, \underline{\sigma_j} + \ell_j - 1] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - 1] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.3693 **Relation:** [b,e,f,mi,o,si]

Complement relation.

$$\begin{cases} [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + \ell_j - 2] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3694 Relation: [b,e,f,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \neq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \end{cases}$$

1.3695 **Relation:** [b,e,f,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3696 **Relation:** [b,e,f,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \end{cases}$$

Complement relation.

Complement relation.

1.3698 Relation: [b,e,f,mi,s]

Complement relation.

1.3699 Relation: [b,e,f,mi,s,si]

Complement relation.

1.3700 Relation: [b,e,f,mi,si]

Complement relation.

1.3701 Relation: [b,e,f,o]

Complement relation.

1.3702 Relation: [b,e,f,o,oi]

Complement relation.

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1.3703 **Relation:** [b,e,f,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, o_j - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, o_j] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.3704 Relation: [b,e,f,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3705 Relation: [b,e,f,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3706 **Relation:** [b,e,f,o,s]

Complement relation.

$$\begin{cases} [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + 1, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i} - 1] \cup [\underline{\overline{o_j}} + \underline{\ell_j} - \underline{\ell_i} + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + \underline{\ell_j} - \underline{\ell_i} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + \underline{\ell_j} - \underline{\ell_i}, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3707 Relation: [b,e,f,o,s,si]

Complement relation.

$$\begin{cases} [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + 1, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i} - 1] \cup [\underline{\overline{o_j}} + \underline{\ell_j} - \underline{\ell_i} + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\underline{\overline{o_j}} + 1, +\infty[& \text{if } \ell_j = 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + \underline{\ell_j} - \underline{\ell_i} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \underline{\ell_i} \geq \underline{\ell_j} - 1 \wedge \underline{\ell_j} > 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\underline{\overline{o_j}} + 1, +\infty[& \text{if } \ell_i > \underline{\ell_j} \wedge \underline{\ell_j} > 1 \end{cases}$$

1.3708 **Relation:** [b,e,f,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \overline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3709 Relation: [b,e,f,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \neq \ell_j - 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3710 Relation: [b,e,f,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3711 Relation: [b,e,f,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \end{cases}$$

1.3712 Relation: [b,e,f,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.3713 Relation: [b,e,f,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3714 Relation: [b,e,f,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.3715 Relation: [b,e,f,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.3716 Relation: [b,e,fi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.3717 Relation: [b,e,fi,m]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \neq \ell_j + 1 \wedge \ell_j = 1 \end{cases}$$

1.3718 Relation: [b,e,fi,m,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.3719 Relation: [b,e,fi,m,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.3720 Relation: [b,e,fi,m,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3721 Relation: [b,e,fi,m,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3722 Relation: [b,e,fi,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.3723 Relation: [b,e,fi,m,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.3724 Relation: [b,e,fi,m,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3725 Relation: [b,e,fi,m,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.3726 Relation: [b,e,fi,m,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.3727 Relation: [b,e,fi,m,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 2, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 2, \underline{o_j}] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3728 Relation: [b,e,fi,m,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 2, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.3734 Relation: [b,e,fi,m,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \neq \ell_j + 1 \end{cases}$$

1.3735 Relation: [b,e,fi,m,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{cases}$$

1.3736 Relation: [b,e,fi,m,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 2, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3737 Relation: [b,e,fi,m,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.3738 Relation: [b,e,fi,m,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.3739 Relation: [b,e,fi,m,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3740 Relation: [b,e,fi,m,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.3741 Relation: [b,e,fi,m,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.3742 Relation: [b,e,fi,m,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \neq \ell_j + 1 \wedge \ell_j = 1 \end{cases}$$

1.3743 Relation: [b,e,fi,m,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 2, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3744 Relation: [b,e,fi,m,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.3745 Relation: [b,e,fi,m,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.3746 Relation: [b,e,fi,m,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 2, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3747 Relation: [b,e,fi,m,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.3748 Relation: [b,e,fi,m,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.3749 Relation: [b,e,fi,mi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.3750 Relation: [b,e,fi,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.3751 Relation: [b,e,fi,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.3752 Relation: [b,e,fi,mi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.3765 Relation: [b,e,fi,o]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \neq \ell_j + 1 \end{cases}$$

1.3766 Relation: [b,e,fi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3767 Relation: [b,e,fi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} - \ell_i + 2, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3768 Relation: [b,e,fi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.3769 Relation: [b,e,fi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.3770 Relation: [b,e,fi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3771 Relation: [b,e,fi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.3772 Relation: [b,e,fi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.3773 Relation: [b,e,fi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3774 Relation: [b,e,fi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} - \ell_i + 2, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3775 Relation: [b,e,fi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.3776 Relation: [b,e,fi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.3777 Relation: [b,e,fi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3778 Relation: [b,e,fi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 2] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.3779 Relation: [b,e,fi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.3780 Relation: [b,e,m]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \neq \ell_j \end{cases}$$

1.3781 Relation: [b,e,m,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \end{cases}$$

1.3782 Relation: [b,e,m,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 2, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3783 Relation: [b,e,m,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3784 Relation: [b,e,m,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3785 Relation: [b,e,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3786 Relation: [b,e,m,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3787 Relation: [b,e,m,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3788 Relation: [b,e,m,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3789 Relation: [b,e,m,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3790 Relation: [b,e,m,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3791 Relation: [b,e,m,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{\sigma_j} - \ell_i + 1, \underline{\sigma_j} - 1] \cup [\underline{\sigma_j} + 1, \underline{\sigma_j} + \ell_j - \ell_i] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\underline{\sigma_j} + 1, \underline{\sigma_j} + \ell_j - 1] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ \underline{\sigma_j} - \ell_i + 1, \underline{\sigma_j} - 1] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ \underline{\sigma_j} - \ell_i + 1, \underline{\sigma_j}] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.3792 **Relation:** [b,e,m,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.3793 **Relation:** [b,e,m,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \overline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \overline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.3794 Relation: [b,e,m,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3795 **Relation:** [b,e,m,mi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.3796 Relation: [b,e,m,mi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.3797 Relation: [b,e,m,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3798 Relation: [b,e,m,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.3799 Relation: [b,e,m,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3800 Relation: [b,e,m,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3801 Relation: [b,e,m,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3802 Relation: [b,e,m,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3803 Relation: [b,e,m,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3804 Relation: [b,e,m,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3805 Relation: [b,e,m,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.3806 Relation: [b,e,m,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3807 Relation: [b,e,m,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.3808 Relation: [b,e,m,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.3809 Relation: [b,e,m,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3810 Relation: [b,e,m,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > 1 \end{cases}$$

1.3811 Relation: [b,e,m,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.3812 Relation: [b,e,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \end{cases}$$

1.3813 Relation: [b,e,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.3814 Relation: [b,e,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.3815 Relation: [b,e,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, o_j - \ell_i] \cup [\overline{o_j} + 1, o_j + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \overline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, o_j] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, o_j - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, o_j] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3816 Relation: [b,e,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, o_j - \ell_i] \cup [\overline{o_j} + 1, o_j + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, o_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, o_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, o_j - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, o_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3817 **Relation:** [b,e,mi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \overline{o_j} - \ell_i] \cup [\overline{o_j}, \overline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \overline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \overline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \overline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \overline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \overline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.3818 Relation: [b,e,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3819 Relation: [b,e,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3820 Relation: [b,e,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.3821 **Relation:** [b,e,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3822 **Relation:** [b,e,mi,oi,s]

Complement relation.

$$\begin{cases} [\underline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\underline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\underline{o_j} - \ell_i, \underline{o_j}] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3823 **Relation:** [b,e,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.3824 Relation: [b,e,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \overline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \overline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.3825 **Relation:** [b,e,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3826 Relation: [b,e,mi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j > 1 \end{cases}$$

1.3827 Relation: [b,e,mi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.3828 Relation: [b,e,o]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.3829 Relation: [b,e,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.3830 Relation: [b,e,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3831 Relation: [b,e,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3832 Relation: [b,e,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3833 Relation: [b,e,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3834 Relation: [b,e,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3835 Relation: [b,e,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3836 Relation: [b,e,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.3837 Relation: [b,e,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3838 Relation: [b,e,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.3839 Relation: [b,e,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.3840 Relation: [b,e,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3841 Relation: [b,e,s,si]

Complement relation.

$$[\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[$$

1.3842 Relation: [b,e,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.3843 Relation: [b,f]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.3844 Relation: [b,f,fi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \neq \ell_j \end{cases}$$

1.3845 Relation: [b,f,fi,m]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3846 Relation: [b,f,fi,m,mi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.3847 Relation: [b,f,fi,m,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.3848 Relation: [b,f,fi,m,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.3849 Relation: [b,f,fi,m,mi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.3850 Relation: [b,f,fi,m,mi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \end{array} \right.$$

1.3851 Relation: [b,f,fi,m,mi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.3852 Relation: [b,f,fi,m,mi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.3853 Relation: [b,f,fi,m,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 2, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.3854 Relation: [b,f,fi,m,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_j + \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.3855 Relation: [b,f,fi,m,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.3856 Relation: [b,f,fi,m,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} + 1, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i} - 1] \cup [\underline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i < \underline{\ell_j} - 1 \wedge \ell_i = 1 \\ [\underline{o_j} - \underline{\ell_i} + 1, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i} - 1] \cup [\underline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i < \underline{\ell_j} - 1 \wedge \ell_i > 1 \\ [\underline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i = \underline{\ell_j} - 1 \wedge \ell_i = 1 \\ [\underline{o_j} - \underline{\ell_i} + 1, \underline{o_j} - \underline{\ell_j} + \underline{\ell_i}] \cup [\underline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i \leq \underline{\ell_j} \wedge \ell_i \geq \underline{\ell_j} - 1 \wedge \ell_i > 1 \\ [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i \leq \underline{\ell_j} + 1 \wedge \underline{\ell_j} = 1 \\ [\underline{o_j} - \underline{\ell_i} + 1, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i} - 1] \cup [\underline{o_j} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j}] \cup [\underline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i > \underline{\ell_j} \wedge \underline{\ell_j} > 1 \\ [\underline{o_j} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j}] \cup [\underline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i > \underline{\ell_j} + 1 \wedge \underline{\ell_j} = 1 \end{array} \right.$$

1.3857 **Relation:** [b,f,fi,m,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\underline{o_j} - \ell_i + 2, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.3858 **Relation:** [b,f,fi,m,mi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.3859 Relation: [b,f,fi,m,mi,s]

Complement relation.

$[\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[$	if $\ell_i < \ell_j - 1 \wedge \ell_i = 1$
$[\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[$	if $\ell_i < \ell_j - 1 \wedge \ell_i > 1$
$[\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[$	if $\ell_i = \ell_j \wedge \ell_i > 1$
$[\overline{o_j} + \ell_j + 1, +\infty[$	if $\ell_i = \ell_j - 1 \wedge \ell_i = 1$
$[\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[$	if $\ell_i = \ell_j - 1 \wedge \ell_i > 1$
$[\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[$	if $\ell_i \leq \ell_j + 1 \wedge \ell_j = 1$
$[\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[$	if $\ell_i > \ell_j \wedge \ell_j > 1$
$[\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[$	if $\ell_i > \ell_j + 1 \wedge \ell_j = 1$

1.3860 Relation: [b,f,fi,m,mi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 2, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.3861 Relation: [b,f,fi,m,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + 2, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 2] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 2, \underline{o_j} - 1] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.3862 Relation: [b,f,fi,m,o]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j}, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.3863 Relation: [b,f,fi,m,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.3864 Relation: [b,f,fi,m,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.3865 Relation: [b,f,fi,m,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_i - 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.3866 Relation: [b,f,fi,m,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_i - 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.3867 Relation: [b,f,fi,m,o,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.3868 Relation: [b,f,fi,m,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_j + \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.3869 Relation: [b,f,fi,m,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_j + \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.3870 Relation: [b,f,fi,m,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.3876 Relation: [b,f,fi,m,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.3877 Relation: [b,f,fi,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, o_j + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, o_j + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.3878 Relation: [b,f,fi,mi,o]

Complement relation.

$$\begin{cases} [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i} - 1] \cup [\underline{\overline{o_j}} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j} + \underline{\ell_j} - 1] \cup [\underline{\overline{o_j}} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - 2] \cup [\underline{\overline{o_j}} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j}] \cup [\underline{\overline{o_j}} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j} + \underline{\ell_j} - 1] \cup [\underline{\overline{o_j}} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}}, \underline{o_j} + \underline{\ell_j} - 1] \cup [\underline{\overline{o_j}} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.3879 **Relation:** [b,f,fi,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - 1, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i} - 1] \cup [\underline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \underline{\ell_i} < \underline{\ell_j} - 1 \wedge \underline{\ell_i} = 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i} - 1] \cup [\underline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \underline{\ell_i} < \underline{\ell_j} - 1 \wedge \underline{\ell_i} > 1 \\ [\underline{o_j} - 1, \underline{o_j}] \cup [\underline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \underline{\ell_i} \leq \underline{\ell_j} \wedge \underline{\ell_i} \geq \underline{\ell_j} - 1 \wedge \underline{\ell_i} = 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j}] \cup [\underline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \underline{\ell_i} > \underline{\ell_j} + 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \underline{\ell_i} \geq \underline{\ell_j} - 1 \wedge \underline{\ell_i} \leq \underline{\ell_j} + 1 \wedge \underline{\ell_i} > 1 \end{array} \right.$$

1.3880 **Relation:** [b,f,fi,mi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{\sigma_j} - \underline{\ell_i}, \underline{\sigma_j} - \underline{\ell_i}] \cup [\underline{\sigma_j} + 1, \underline{\sigma_j} + \underline{\ell_j} - \underline{\ell_i} - 1] \cup [\underline{\sigma_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \underline{\ell_i} < \underline{\ell_j} - 1 \\ [\underline{\sigma_j} - \underline{\ell_i}, \underline{\sigma_j} - \underline{\ell_i}] \cup [\underline{\sigma_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \underline{\ell_i} = \underline{\ell_j} - 1 \wedge \underline{\ell_i} > 1 \\ [\underline{\sigma_j} - 1, \underline{\sigma_j} - \underline{\ell_j} + \underline{\ell_i}] \cup [\underline{\sigma_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \underline{\ell_i} \leq \underline{\ell_j} \wedge \underline{\ell_i} \geq \underline{\ell_j} - 1 \wedge \underline{\ell_i} = 1 \\ [\underline{\sigma_j} - \underline{\ell_i}, \underline{\sigma_j} - \underline{\ell_i}] \cup [\underline{\sigma_j} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{\sigma_j}] \cup [\underline{\sigma_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \underline{\ell_i} > \underline{\ell_j} + 1 \\ [\underline{\sigma_j} - \underline{\ell_i}, \underline{\sigma_j} - \underline{\ell_i}] \cup [\underline{\sigma_j}, \underline{\sigma_j}] \cup [\underline{\sigma_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \underline{\ell_i} \geq \underline{\ell_j} \wedge \underline{\ell_i} \leq \underline{\ell_j} + 1 \wedge \underline{\ell_i} > 1 \end{array} \right.$$

1.3892 Relation: [b,f,fi,mi,si]

Complement relation.

$$\begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 2] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} - \ell_i + 2, \underline{o_j} - 1] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array}$$

1.3893 Relation: [b,f,fi,o]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.3894 Relation: [b,f,fi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \underline{\ell_i} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \ell_j - \underline{\ell_i} + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\ \overline{o_j} - \underline{\ell_i}, \underline{o_j} + \ell_j - \underline{\ell_i} - 1] \cup [\overline{o_j} + \ell_j - \underline{\ell_i} + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.3895 **Relation:** [b,f,fi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.3896 Relation: [b,f,fi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + 1, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i} - 1] \cup [\underline{\overline{o_j}} + \underline{\ell_j}, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\underline{\overline{o_j}} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}}, \underline{o_j}] \cup [\underline{\overline{o_j}} + \underline{\ell_j}, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j} - 1] \cup [\underline{\overline{o_j}} + \underline{\ell_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + \underline{\ell_j}, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \end{array} \right.$$

1.3897 Relation: [b,f,fi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.3898 Relation: [b,f,fi,o,s]

Complement relation.

$$\begin{cases} [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\underline{\sigma_j} + 1, \underline{\sigma_j} + \ell_j - \ell_i - 1] \cup [\underline{\sigma_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\underline{\sigma_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\underline{\sigma_j}, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\underline{\sigma_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \end{cases}$$

1.3899 Relation: [b,f,fi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\underline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} - \ell_j + \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.3900 Relation: [b,f,fi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{\overline{oj}} - \underline{\ell_i}, \underline{oj} - \underline{\ell_i}] \cup [\underline{\overline{oj}}, \underline{oj} + \underline{\ell_j} - \underline{\ell_i} - 1] \cup [\underline{\overline{oj}} + \underline{\ell_j} - \underline{\ell_i} + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\underline{\overline{oj}} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\underline{\overline{oj}} - 1, \underline{oj} + \underline{\ell_j} - \underline{\ell_i} - 1] \cup [\underline{\overline{oj}} + \underline{\ell_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\underline{\overline{oj}} - \underline{\ell_i}, \underline{oj} - \underline{\ell_i}] \cup [\underline{\overline{oj}} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{oj} - 1] \cup [\underline{\overline{oj}} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\underline{\overline{oj}} - \underline{\ell_i}, \underline{oj} - \underline{\ell_i}] \cup [\underline{\overline{oj}} - \underline{\ell_j} + \underline{\ell_i}, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.3901 Relation: [b,f,fi,oi]

Complement relation.

$$\begin{cases} [\underline{\overline{o_j}} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\underline{\overline{o_j}} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\underline{\overline{o_j}} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{\overline{o_j}} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\underline{\overline{o_j}} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.3902 Relation: [b,f,fi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_j + \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.3903 Relation: [b,f,fi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + 2\ell_j - 2\ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.3904 Relation: [b,f,fi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.3905 Relation: [b,f,fi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.3906 Relation: [b,f,fi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.3907 Relation: [b,f,fi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.3908 Relation: [b,f,m]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.3909 Relation: [b,f,m,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.3910 Relation: [b,f,m,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.3911 Relation: [b,f,m,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.3912 Relation: [b,f,m,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.3913 Relation: [b,f,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3914 Relation: [b,f,m,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3915 **Relation:** [b,f,m,mi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.3916 Relation: [b,f,m,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.3917 Relation: [b,f,m,mi,o,si]

Complement relation.

$$\begin{cases} [\underline{\overline{o_j}}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{\overline{o_j}} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\underline{\overline{o_j}}, \underline{o_j} + \ell_j - 1] \cup [\underline{\overline{o_j}} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\underline{\overline{o_j}} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\underline{\overline{o_j}} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{\overline{o_j}} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\underline{\overline{o_j}} - \ell_i + 1, \underline{o_j} + \ell_j - 2] \cup [\underline{\overline{o_j}} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.3918 Relation: [b,f,m,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \end{cases}$$

1.3919 Relation: [b,f,m,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.3920 Relation: [b,f,m,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.3921 **Relation:** [b,f,m,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3922 **Relation:** [b,f,m,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.3923 Relation: [b,f,m,mi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.3924 **Relation:** [b,f,m,mi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.3925 Relation: [b,f,m,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \overline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.3926 Relation: [b,f,m,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.3927 Relation: [b,f,m,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.3928 Relation: [b,f,m,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3929 Relation: [b,f,m,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3930 Relation: [b,f,m,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + 2\ell_j - 2\ell_i, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3931 Relation: [b,f,m,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} + 2\ell_j - 2\ell_i, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3932 Relation: [b,f,m,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j}, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3933 Relation: [b,f,m,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \end{cases}$$

1.3934 Relation: [b,f,m,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} + 2\ell_j - \ell_i - 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.3935 Relation: [b,f,m,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 2\ell_j - 2\ell_i, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.3936 Relation: [b,f,m,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3937 Relation: [b,f,m,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} + 2\ell_j - 2\ell_i, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.3938 Relation: [b,f,m,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.3939 Relation: [b,f,m,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3940 Relation: [b,f,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.3941 Relation: [b,f,mi,o]

Complement relation.

$$\begin{cases} [\overline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\overline{\sigma_j}, \underline{\sigma_j} + \ell_j - \ell_i - 1] \cup [\overline{\sigma_j} + \ell_j - \ell_i + 1, \underline{\sigma_j} + \ell_j - 1] \cup [\overline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{\sigma_j} - 1, \underline{\sigma_j} + \ell_j - \ell_i - 1] \cup [\overline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\overline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_i] \cup [\overline{\sigma_j} + \ell_j - \ell_i, \underline{\sigma_j} + \ell_j - 1] \cup [\overline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{\sigma_j} - \ell_i, \underline{\sigma_j}] \cup [\overline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.3942 **Relation:** [b,f,mi,o,oi]

Complement relation.

$$\begin{cases} [\underline{o_j} - 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.3943 **Relation:** [b,f,mi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + 1, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i} - 1] \cup [\underline{\overline{o_j}} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j}] \cup [\underline{\overline{o_j}} + 2, +\infty[& \text{if } \ell_j = 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j}] \cup [\underline{\overline{o_j}} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.3949 Relation: [b,f,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \end{cases}$$

1.3950 Relation: [b,f,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i, o_j] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.3951 **Relation:** [b,f,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \end{cases}$$

1.3952 Relation: [b,f,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3953 Relation: [b,f,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{\sigma_j} - 1, \underline{\sigma_j} - 1] \cup [\underline{\sigma_j} + 1, \underline{\sigma_j} + \ell_j - \ell_i - 1] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - 1] \cup [\underline{\sigma_j} + 1, \underline{\sigma_j} + \ell_j - \ell_i - 1] \cup [\underline{\sigma_j} + \ell_j - \ell_i + 1, \underline{\sigma_j} + \ell_j - 1] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - 1] \cup [\underline{\sigma_j} + \ell_j - \ell_i + 1, \underline{\sigma_j} + \ell_j - 1] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} + \ell_j - 1] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\underline{\sigma_j} - \ell_i, \underline{\sigma_j} - \ell_j + 1] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.3954 Relation: [b,f,mi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{\overline{o}_j} - 1, \underline{o}_j - 1] \cup [\underline{\overline{o}_j} + 1, \underline{o}_j + \ell_j - \ell_i - 1] \cup [\underline{\overline{o}_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [\underline{\overline{o}_j} - \ell_i, \underline{o}_j - 1] \cup [\underline{\overline{o}_j} + 1, \underline{o}_j + \ell_j - \ell_i - 1] \cup [\underline{\overline{o}_j} + \ell_j - \ell_i + 1, \underline{o}_j + \ell_j - 1] \cup [\underline{\overline{o}_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{\overline{o}_j} - \ell_i, \underline{o}_j + \ell_j - 1] \cup [\underline{\overline{o}_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\underline{\overline{o}_j} - \ell_i, \underline{o}_j - 1] \cup [\underline{\overline{o}_j} + \ell_j - \ell_i + 1, \underline{o}_j + \ell_j - 1] \cup [\underline{\overline{o}_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [\underline{\overline{o}_j} - \ell_i, \underline{o}_j - 1] \cup [\underline{\overline{o}_j} + 1, \underline{o}_j + \ell_j - 1] \cup [\underline{\overline{o}_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\underline{\overline{o}_j} - \ell_i, \underline{o}_j - 1] \cup [\underline{\overline{o}_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.3955 Relation: [b,f,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.3956 Relation: [b,f,o]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.3957 Relation: [b,f,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.3958 Relation: [b,f,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.3959 Relation: [b,f,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.3960 Relation: [b,f,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.3961 Relation: [b,f,o,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.3962 Relation: [b,f,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 2\ell_j - 2\ell_i, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.3963 Relation: [b,f,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.3964 Relation: [b,f,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \end{array} \right.$$

1.3965 Relation: [b,f,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.3966 Relation: [b,f,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \end{cases}$$

1.3967 Relation: [b,f,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3968 Relation: [b,f,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.3969 Relation: [b,f,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3970 Relation: [b,f,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3971 Relation: [b,fi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3972 Relation: [b,fi,m]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{cases}$$

1.3973 Relation: [b,fi,m,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{cases}$$

1.3974 Relation: [b,fi,m,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.3975 Relation: [b,fi,m,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3976 Relation: [b,fi,m,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3977 Relation: [b,fi,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.3978 Relation: [b,fi,m,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.3979 Relation: [b,fi,m,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3980 Relation: [b,fi,m,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.3981 Relation: [b,fi,m,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.3982 Relation: [b,fi,m,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{cases}$$

1.3983 Relation: [b,fi,m,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 2, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.3989 Relation: [b,fi,m,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.3990 Relation: [b,fi,m,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.3991 Relation: [b,fi,m,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 2, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.3992 Relation: [b,fi,m,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.3993 Relation: [b,fi,m,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_i - 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.3994 Relation: [b,fi,m,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j}, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.3995 Relation: [b,fi,m,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.3996 Relation: [b,fi,m,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.3997 Relation: [b,fi,m,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{cases}$$

1.3998 Relation: [b,fi,m,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 2, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.3999 Relation: [b,fi,m,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + 2\ell_j - 2\ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.4000 Relation: [b,fi,m,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_i - 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.4001 Relation: [b,fi,m,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 2, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.4002 Relation: [b,fi,m,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.4003 Relation: [b,fi,m,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 2] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i + 2, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.4004 Relation: [b,fi,mi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.4005 Relation: [b,fi,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.4006 Relation: [b,fi,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.4007 Relation: [b,fi,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j + 1, +\infty] & \text{if } \ell_i < \ell_j \\ [\underline{o_j} - 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j + 1, +\infty] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j + 1, +\infty] & \text{if } \ell_i > \ell_j + 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, o_j] \cup [\underline{o_j} + \ell_j + 1, +\infty] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.4008 **Relation:** [b,fi,mi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 2\ell_i + 2] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.4009 Relation: [b,fi,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\underline{o_j} - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.4010 Relation: [b,fi,mi,o,s]

Complement relation.

$$\begin{cases} [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + 1, \underline{o_j} + \underline{\ell_j} - 1] \cup [\underline{\overline{o_j}} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j}] \cup [\underline{\overline{o_j}} + 2, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j} + \underline{\ell_j} - 1] \cup [\underline{\overline{o_j}} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i > \underline{\ell_j} + 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}}, \underline{o_j} + \underline{\ell_j} - 1] \cup [\underline{\overline{o_j}} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i \geq \underline{\ell_j} \wedge \underline{\ell_i} \leq \underline{\ell_j} + 1 \wedge \ell_i > 1 \end{cases}$$

1.4011 Relation: [b,fi,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} + 2\ell_j - 2\ell_i] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \underline{\ell_i} + 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.4012 Relation: [b,fi,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 2\ell_i + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.4013 Relation: [b,fi,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.4014 Relation: [b,fi,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.4015 Relation: [b,fi,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + 2\ell_j - 2\ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.4016 Relation: [b,fi,mi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 2\ell_i + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.4017 Relation: [b,fi,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.4018 **Relation:** [b,fi,mi,s,si]

Complement relation.

$[\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\underline{\overline{o_j}} + 1, \underline{o_j} + \underline{\ell_j} - 1] \cup [\underline{\overline{o_j}} + \underline{\ell_j} + 1, +\infty[$	if $\underline{\ell_i} < \underline{\ell_j}$
$[\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - 1] \cup [\underline{\overline{o_j}} + \underline{\ell_j} + 1, +\infty[$	if $\underline{\ell_i} = \underline{\ell_j}$
$[\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + \underline{\ell_j} + 1, +\infty[$	if $\underline{\ell_i} = \underline{\ell_j} + 1 \wedge \underline{\ell_j} = 1$
$[\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i} - 1] \cup [\underline{\overline{o_j}} + 1, \underline{o_j} + \underline{\ell_j} - 1] \cup [\underline{\overline{o_j}} + \underline{\ell_j} + 1, +\infty[$	if $\underline{\ell_i} = \underline{\ell_j} + 1 \wedge \underline{\ell_j} > 1$
$[\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j} - 1] \cup [\underline{\overline{o_j}} + \underline{\ell_j} + 1, +\infty[$	if $\underline{\ell_i} > \underline{\ell_j} + 1 \wedge \underline{\ell_j} = 1$
$[\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i} - 1] \cup [\underline{\overline{o_j}} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j} - 1] \cup [\underline{\overline{o_j}} + 1, \underline{o_j} + \underline{\ell_j} - 1] \cup [\underline{\overline{o_j}} + \underline{\ell_j} + 1, +\infty[$	if $\underline{\ell_i} > \underline{\ell_j} + 1 \wedge \underline{\ell_j} > 1$

1.4019 Relation: [b,fi,mi,si]

Complement relation.

$$\begin{cases} [\underline{\sigma_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{\sigma_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\underline{\sigma_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\underline{\sigma_j} - \ell_i, \underline{o_j} + \ell_j - 2\ell_i + 1] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [\underline{\sigma_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{\sigma_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [\underline{\sigma_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{\sigma_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{\sigma_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{\sigma_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.4020 Relation: [b,fi,o]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.4021 **Relation:** [b,fi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + \underline{\ell_j}, +\infty[& \text{if } \ell_i < \underline{\ell_j} \wedge \ell_i > 1 \\ [\underline{\overline{o_j}} - 1, +\infty[& \text{if } \ell_i = 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + \underline{\ell_j} - \underline{\ell_i} + 1, +\infty[& \text{if } \underline{\ell_j} > 1 \wedge \underline{\ell_j} = 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j}] \cup [\underline{\overline{o_j}} + \underline{\ell_j}, +\infty[& \text{if } \underline{\ell_j} > \underline{\ell_j} + 1 \wedge \underline{\ell_j} > 1 \\ [\underline{\overline{o_j}} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{\overline{o_j}}, \underline{o_j}] \cup [\underline{\overline{o_j}} + \underline{\ell_j}, +\infty[& \text{if } \underline{\ell_j} \geq \underline{\ell_j} \wedge \underline{\ell_i} \leq \underline{\ell_j} + 1 \wedge \underline{\ell_i} > 1 \wedge \underline{\ell_j} > 1 \end{array} \right.$$

1.4022 **Relation:** [b,fi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j} + 1, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\underline{o_j} + \underline{\ell_j}, +\infty[& \text{if } \ell_i < \underline{\ell_j} \wedge \ell_i > 1 \\ [\underline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \underline{\ell_j} = 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j}] \cup [\underline{o_j} + \underline{\ell_j}, +\infty[& \text{if } \ell_i > \underline{\ell_j} + 1 \wedge \underline{\ell_j} > 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \underline{\ell_j}, +\infty[& \text{if } \underline{\ell_i} \geq \underline{\ell_j} \wedge \underline{\ell_i} \leq \underline{\ell_j} + 1 \wedge \ell_i > 1 \wedge \underline{\ell_j} > 1 \\ [\underline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j} - \underline{\ell_i} + 2, +\infty[& \text{if } \ell_i \neq \underline{\ell_j} \wedge \min(\ell_i, \underline{\ell_j}) = 1 \end{array} \right.$$

1.4023 Relation: [b,fi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.4024 Relation: [b,fi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.4025 Relation: [b,fi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.4026 Relation: [b,fi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.4027 Relation: [b,fi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.4028 Relation: [b,fi,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.4029 Relation: [b,fi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} - \ell_i + 2, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.4030 Relation: [b,fi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + 2\ell_j - 2\ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.4031 Relation: [b,fi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.4032 Relation: [b,fi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.4033 Relation: [b,fi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.4034 Relation: [b,fi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.4035 Relation: [b,m]

Complement relation.

$$[\overline{o_j} - \ell_i + 1, +\infty[$$

1.4036 Relation: [b,m,mi]

Complement relation.

$$[\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[$$

1.4037 Relation: [b,m,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.4038 Relation: [b,m,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.4039 Relation: [b,m,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.4040 Relation: [b,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.4041 Relation: [b,m,mi,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.4042 Relation: [b,m,mi,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.4043 Relation: [b,m,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4044 Relation: [b,m,mi,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4045 Relation: [b,m,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.4046 Relation: [b,m,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.4047 Relation: [b,m,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.4048 Relation: [b,m,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.4049 Relation: [b,m,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.4050 Relation: [b,m,mi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.4051 Relation: [b,m,mi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4052 Relation: [b,m,o]

Complement relation.

$$\begin{cases} [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.4053 Relation: [b,m,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4054 Relation: [b,m,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.4055 Relation: [b,m,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.4056 Relation: [b,m,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.4057 Relation: [b,m,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.4058 Relation: [b,m,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j}, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.4059 Relation: [b,m,o,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.4060 Relation: [b,m,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.4061 Relation: [b,m,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.4062 Relation: [b,m,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.4063 Relation: [b,m,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.4064 Relation: [b,m,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.4065 Relation: [b,m,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.4066 Relation: [b,m,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.4067 Relation: [b,mi]

Complement relation.

$$[\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[$$

1.4068 Relation: [b,mi,o]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4069 Relation: [b,mi,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4070 **Relation:** [b,mi,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.4071 Relation: [b,mi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\underline{o_j} - \ell_i, \underline{o_j}] \cup [\underline{o_j} + 2, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + 2, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.4072 **Relation:** [b,mi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\underline{o_j} - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.4073 **Relation:** [b,mi,o,s]

Complement relation.

$$\begin{cases} [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\underline{o_j} - \ell_i, \underline{o_j}] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.4074 **Relation:** [b,mi,o,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4075 **Relation:** [b,mi,o,si]

Complement relation.

$$\begin{cases} [\underline{o_j} - 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\underline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4076 Relation: [b,mi,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.4077 Relation: [b,mi,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.4078 Relation: [b,mi,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.4079 Relation: [b,mi,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.4080 Relation: [b,mi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.4081 Relation: [b,mi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4082 Relation: [b,mi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4083 Relation: [b,o]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4084 Relation: [b,o,oi]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4085 Relation: [b,o,oi,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.4086 Relation: [b,o,oi,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.4087 Relation: [b,o,oi,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4088 Relation: [b,o,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \ell_i, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.4089 Relation: [b,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \ell_j - \underline{\ell_i}, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.4090 Relation: [b,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \underline{\ell_i}, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \ell_j - \underline{\ell_i}, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.4091 Relation: [b,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \underline{\ell_i}, \underline{o_j} + \ell_j - \underline{\ell_i}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \underline{\ell_i}, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [\overline{o_j} - \underline{\ell_i}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.4092 Relation: [b,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \underline{\ell_i}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [\overline{o_j} - \underline{\ell_i}, +\infty[& \text{if } \ell_j = 1 \\ [\overline{o_j} - \underline{\ell_i}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.4093 Relation: [b,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \underline{\ell_i}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [\overline{o_j} - \underline{\ell_i}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [\overline{o_j} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.4094 Relation: [b,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = 1 \\ [\overline{o_j} - \underline{\ell_i}, \underline{o_j} + \ell_j - \underline{\ell_i}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [\overline{o_j} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.4095 Relation: [b,s]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.4096 Relation: [b,s,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i = \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \neq \ell_j \end{cases}$$

1.4097 Relation: [b,si]

Complement relation.

$$\begin{cases} [\overline{o_j} - \ell_i, +\infty[& \text{if } \ell_i \leq \ell_j \\ [\overline{o_j} - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.4098 Relation: [bi]

Complement relation.

$$]-\infty, \underline{o_j} + \ell_j]$$

1.4099 Relation: [bi,d]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \end{cases}$$

1.4100 Relation: [bi,d,di]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.4101 Relation: [bi,d,di,e]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \end{cases}$$

1.4102 Relation: [bi,d,di,e,f]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.4103 Relation: [bi,d,di,e,f,fi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4104 Relation: [bi,d,di,e,f,fi,m]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4105 Relation: [bi,d,di,e,f,fi,m,mi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.4106 Relation: [bi,d,di,e,f,fi,m,mi,o]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.4107 Relation: [bi,d,di,e,f,fi,m,mi,o,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \neq \ell_j \end{cases}$$

1.4108 Relation: [bi,d,di,e,f,fi,m,mi,o,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4109 Relation: [bi,d,di,e,f,fi,m,mi,o,oi,s,si]

Complement relation.

$$] - \infty, \underline{o_j} - \ell_i - 1]$$

1.4110 Relation: [bi,d,di,e,f,fi,m,mi,o,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.4111 Relation: [bi,d,di,e,f,fi,m,mi,o,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4112 Relation: [bi,d,di,e,f,fi,m,mi,o,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.4113 Relation: [bi,d,di,e,f,fi,m,mi,o,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.4114 Relation: [bi,d,di,e,f,fi,m,mi,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - 2] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4115 Relation: [bi,d,di,e,f,fi,m,mi,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4116 Relation: [bi,d,di,e,f,fi,m,mi,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4117 Relation: [bi,d,di,e,f,fi,m,mi,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.4118 Relation: [bi,d,di,e,f,fi,m,mi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4119 Relation: [bi,d,di,e,f,fi,m,mi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4120 Relation: [bi,d,di,e,f,fi,m,mi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.4121 Relation: [bi,d,di,e,f,fi,m,o]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4122 Relation: [bi,d,di,e,f,fi,m,o,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4123 Relation: [bi,d,di,e,f,fi,m,o,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4124 Relation: [bi,d,di,e,f,fi,m,o,oi,s,si]

Complement relation.

$$] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j]$$

1.4125 Relation: [bi,d,di,e,f,fi,m,o,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.4126 Relation: [bi,d,di,e,f,fi,m,o,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4127 Relation: [bi,d,di,e,f,fi,m,o,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.4128 Relation: [bi,d,di,e,f,fi,m,o,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.4129 Relation: [bi,d,di,e,f,fi,m,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.4130 Relation: [bi,d,di,e,f,fi,m,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.4131 **Relation:** [bi,d,di,e,f,fi,m,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.4132 **Relation:** [bi,d,di,e,f,fi,m,oi,si]

Complement relation.

$$\left. \begin{aligned} &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] && \text{if } \ell_i < \ell_j \\ &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] && \text{if } \ell_j = 1 \\ &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] && \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{aligned} \right\}$$

1.4133 Relation: [bi,d,di,e,f,fi,m,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.4134 Relation: [bi,d,di,e,f,fi,m,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4135 Relation: [bi,d,di,e,f,fi,m,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.4136 Relation: [bi,d,di,e,f,fi,mi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4137 Relation: [bi,d,di,e,f,fi,mi,o]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4138 Relation: [bi,d,di,e,f,fi,mi,o,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \neq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.4139 Relation: [bi,d,di,e,f,fi,mi,o,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4140 Relation: [bi,d,di,e,f,fi,mi,o,oi,s,si]

Complement relation.

$$]-\infty, \underline{o_j} - \ell_i]$$

1.4141 Relation: [bi,d,di,e,f,fi,mi,o,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.4142 Relation: [bi,d,di,e,f,fi,mi,o,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4143 Relation: [bi,d,di,e,f,fi,mi,o,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] & \text{if } \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.4144 Relation: [bi,d,di,e,f,fi,mi,o,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.4145 Relation: [bi,d,di,e,f,fi,mi,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - 1] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4146 Relation: [bi,d,di,e,f,fi,mi,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4147 Relation: [bi,d,di,e,f,fi,mi,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4148 Relation: [bi,d,di,e,f,fi,mi,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.4149 Relation: [bi,d,di,e,f,fi,mi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] & \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4150 Relation: [bi,d,di,e,f,fi,mi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] & \text{if } \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4151 Relation: [bi,d,di,e,f,fi,mi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] & \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.4152 Relation: [bi,d,di,e,f,fi,o]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4153 Relation: [bi,d,di,e,f,fi,o,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.4154 Relation: [bi,d,di,e,f,fi,o,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4155 Relation: [bi,d,di,e,f,fi,o,oi,s,si]

Complement relation.

$$] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j]$$

1.4156 Relation: [bi,d,di,e,f,fi,o,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.4157 Relation: [bi,d,di,e,f,fi,o,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4158 Relation: [bi,d,di,e,f,fi,o,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4159 Relation: [bi,d,di,e,f,fi,o,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.4160 Relation: [bi,d,di,e,f,fi,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4161 Relation: [bi,d,di,e,f,fi,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4162 Relation: [bi,d,di,e,f,fi,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4163 Relation: [bi,d,di,e,f,fi,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.4164 Relation: [bi,d,di,e,f,fi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4165 Relation: [bi,d,di,e,f,fi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4166 Relation: [bi,d,di,e,f,fi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.4167 Relation: [bi,d,di,e,f,m]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - 2\ell_i + 3, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.4168 Relation: [bi,d,di,e,f,m,mi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.4169 Relation: [bi,d,di,e,f,m,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 2\ell_j - 2\ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.4170 Relation: [bi,d,di,e,f,m,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.4171 Relation: [bi,d,di,e,f,m,mi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.4172 Relation: [bi,d,di,e,f,m,mi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.4173 Relation: [bi,d,di,e,f,m,mi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.4174 Relation: [bi,d,di,e,f,m,mi,o,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.4175 Relation: [bi,d,di,e,f,m,mi,o,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4176 Relation: [bi,d,di,e,f,m,mi,o,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.4177 Relation: [bi,d,di,e,f,m,mi,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.4178 Relation: [bi,d,di,e,f,m,mi,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i = \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.4179 Relation: [bi,d,di,e,f,m,mi,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.4180 Relation: [bi,d,di,e,f,m,mi,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.4181 Relation: [bi,d,di,e,f,m,mi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.4182 Relation: [bi,d,di,e,f,m,mi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.4183 Relation: [bi,d,di,e,f,m,mi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.4184 Relation: [bi,d,di,e,f,m,o]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 2\ell_j - 2\ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.4185 **Relation:** [bi,d,di,e,f,m,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\underline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.4186 Relation: [bi,d,di,e,f,m,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - 2\ell_i + 2, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.4187 **Relation:** [bi,d,di,e,f,m,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.4188 **Relation:** [bi,d,di,e,f,m,o,oi,si]

Complement relation.

$$\left. \begin{aligned} &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] && \text{if } \ell_i < \ell_j \\ &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] && \text{if } \ell_i = \ell_j \\ &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] && \text{if } \ell_i > \ell_j \end{aligned} \right\}$$

1.4189 Relation: [bi,d,di,e,f,m,o,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - 2\ell_i + 2, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.4190 **Relation:** [bi,d,di,e,f,m,o,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j - \ell_i + 1, \underline{o}_j + \ell_j] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j - \ell_i, \underline{o}_j + \ell_j - \ell_i] \cup [\overline{o}_j + 1, \underline{o}_j + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4191 **Relation:** [bi,d,di,e,f,m,o,si]

Complement relation.

$$\left. \begin{aligned} & [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] && \text{if } \ell_i < \ell_j \\ & [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] && \text{if } \ell_i = \ell_j \\ & [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] && \text{if } \ell_i > \ell_j \end{aligned} \right\}$$

1.4192 **Relation:** [bi,d,di,e,f,m,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - 2\ell_i + 3, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\underline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.4193 Relation: [bi,d,di,e,f,m,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j - 2\ell_i + 2, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\underline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.4194 Relation: [bi,d,di,e,f,m,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.4195 Relation: [bi,d,di,e,f,m,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.4196 Relation: [bi,d,di,e,f,m,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - 2] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i = 1 \\ [-\infty, \underline{o_j} - \underline{\ell_i} - 1] \cup [\overline{o_j} - \underline{\ell_i} + 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i = \underline{\ell_j} + 1 \\ [-\infty, \underline{o_j} - \underline{\ell_i} - 1] \cup [\overline{o_j} - \underline{\ell_i} + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} \leq \underline{\ell_j} \wedge \underline{\ell_i} > 1 \\ [-\infty, \underline{o_j} - \underline{\ell_i} - 1] \cup [\overline{o_j} - \underline{\ell_i} + 1, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\overline{o_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} > \underline{\ell_j} + 1 \end{array} \right.$$

1.4197 Relation: [bi,d,di,e,f,m,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.4198 Relation: [bi,d,di,e,f,m,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.4199 Relation: [bi,d,di,e,f,mi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.4200 Relation: [bi,d,di,e,f,mi,o]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 2\ell_j - 2\ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.4201 Relation: [bi,d,di,e,f,mi,o,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.4202 Relation: [bi,d,di,e,f,mi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] & \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.4203 Relation: [bi,d,di,e,f,mi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.4204 Relation: [bi,d,di,e,f,mi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.4205 Relation: [bi,d,di,e,f,mi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_i - 2] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.4206 Relation: [bi,d,di,e,f,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.4207 Relation: [bi,d,di,e,f,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.4208 Relation: [bi,d,di,e,f,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.4209 Relation: [bi,d,di,e,f,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j}] & \text{if } \ell_i = \ell_j + 1 \\]-\infty, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.4210 Relation: [bi,d,di,e,f,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j + 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.4211 Relation: [bi,d,di,e,f,mi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j}] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - 1] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.4212 Relation: [bi,d,di,e,f,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_i - 2] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.4218 **Relation:** [bi,d,di,e,f,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.4219 **Relation:** [bi,d,di,e,f,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.4220 Relation: [bi,d,di,e,f,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.4221 **Relation:** [bi,d,di,e,f,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.4222 Relation: [bi,d,di,e,f,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.4223 Relation: [bi,d,di,e,f,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.4224 Relation: [bi,d,di,e,f,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.4225 Relation: [bi,d,di,e,f,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.4226 Relation: [bi,d,di,e,f,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.4227 Relation: [bi,d,di,e,f,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.4228 Relation: [bi,d,di,e,f,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.4229 Relation: [bi,d,di,e,f,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4230 Relation: [bi,d,di,e,fi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4231 Relation: [bi,d,di,e,fi,m]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_j + 2, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4232 Relation: [bi,d,di,e,fi,m,mi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4233 Relation: [bi,d,di,e,fi,m,mi,o]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \end{cases}$$

1.4234 Relation: [bi,d,di,e,fi,m,mi,o,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4235 Relation: [bi,d,di,e,fi,m,mi,o,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4236 Relation: [bi,d,di,e,fi,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.4237 Relation: [bi,d,di,e,fi,m,mi,o,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.4238 Relation: [bi,d,di,e,fi,m,mi,o,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4239 Relation: [bi,d,di,e,fi,m,mi,o,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \end{cases}$$

1.4240 Relation: [bi,d,di,e,fi,m,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.4241 Relation: [bi,d,di,e,fi,m,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + 2\ell_j - 2\ell_i - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.4242 Relation: [bi,d,di,e,fi,m,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.4243 Relation: [bi,d,di,e,fi,m,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.4244 Relation: [bi,d,di,e,fi,m,mi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.4245 **Relation:** [bi,d,di,e,fi,m,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.4246 Relation: [bi,d,di,e,fi,m,mi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.4247 Relation: [bi,d,di,e,fi,m,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.4248 Relation: [bi,d,di,e,fi,m,o]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \end{array} \right.$$

1.4249 Relation: [bi,d,di,e,fi,m,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.4250 Relation: [bi,d,di,e,fi,m,o,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.4251 Relation: [bi,d,di,e,fi,m,o,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.4252 Relation: [bi,d,di,e,fi,m,o,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_j + 2, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.4253 Relation: [bi,d,di,e,fi,m,o,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4254 Relation: [bi,d,di,e,fi,m,o,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \end{cases}$$

1.4255 Relation: [bi,d,di,e,fi,m,o,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.4261 Relation: [bi,d,di,e,fi,m,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 2] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.4262 Relation: [bi,d,di,e,fi,m,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.4263 Relation: [bi,d,di,e,fi,mi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.4264 Relation: [bi,d,di,e,fi,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + 2\ell_j - 2\ell_i - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.4265 Relation: [bi,d,di,e,fi,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.4266 Relation: [bi,d,di,e,fi,mi,o,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4267 Relation: [bi,d,di,e,fi,mi,o,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.4268 Relation: [bi,d,di,e,fi,mi,o,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + 2\ell_j - 2\ell_i - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.4269 Relation: [bi,d,di,e,fi,mi,o,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4270 Relation: [bi,d,di,e,fi,mi,o,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \end{cases}$$

1.4271 Relation: [bi,d,di,e,fi,mi,o,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + 2\ell_j - \ell_i - 2] & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.4272 Relation: [bi,d,di,e,fi,mi,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} + 2\ell_j - 2\ell_i - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4273 Relation: [bi,d,di,e,fi,mi,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - 1] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4274 Relation: [bi,d,di,e,fi,mi,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.4275 Relation: [bi,d,di,e,fi,mi,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} + 2\ell_j - 2\ell_i - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4276 Relation: [bi,d,di,e,fi,mi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4277 Relation: [bi,d,di,e,fi,mi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4278 Relation: [bi,d,di,e,fi,mi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i] & \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.4279 Relation: [bi,d,di,e,fi,o]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4280 Relation: [bi,d,di,e,fi,o,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4281 Relation: [bi,d,di,e,fi,o,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.4282 Relation: [bi,d,di,e,fi,o,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.4283 Relation: [bi,d,di,e,fi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.4284 Relation: [bi,d,di,e,fi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.4285 Relation: [bi,d,di,e,fi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \end{array} \right.$$

1.4286 Relation: [bi,d,di,e,fi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.4287 Relation: [bi,d,di,e,fi,oi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.4288 Relation: [bi,d,di,e,fi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.4289 Relation: [bi,d,di,e,fi,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.4290 Relation: [bi,d,di,e,fi,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.4291 Relation: [bi,d,di,e,fi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4292 Relation: [bi,d,di,e,fi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.4293 Relation: [bi,d,di,e,fi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.4294 Relation: [bi,d,di,e,m]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 2] \cup [\overline{o_j} - \ell_j + \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.4295 Relation: [bi,d,di,e,m,mi]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\] -\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \end{array} \right.$$

1.4296 Relation: [bi,d,di,e,m,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\] -\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 2\ell_j - 2\ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.4297 Relation: [bi,d,di,e,m,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\] -\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = \ell_j \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = \ell_j + 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j - 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.4298 Relation: [bi,d,di,e,m,mi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\] -\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = \ell_j \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = \ell_j + 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.4299 Relation: [bi,d,di,e,m,mi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = \ell_j \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \neq \ell_j \end{array} \right.$$

1.4300 Relation: [bi,d,di,e,m,mi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\] -\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = \ell_j \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i = \ell_j - 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.4301 Relation: [bi,d,di,e,m,mi,o,s]

Complement relation.

$$\left\{ \begin{array}{l}]-\infty, \underline{o_j} - \ell_i - 1] \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \end{array} \right. \begin{array}{l} \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \\ \text{if } \ell_i > \ell_j + 1 \end{array}$$

1.4302 Relation: [bi,d,di,e,m,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{l}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \\]-\infty, \underline{o_j} - 2] \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \end{array} \right. \begin{array}{l} \text{if } \ell_i < \ell_j - 1 \\ \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array}$$

1.4303 Relation: [bi,d,di,e,m,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{l}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \\]-\infty, \underline{o_j} - 2] \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_j + \ell_i + 1, \underline{o_j} + \ell_j - 1] \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \end{array} \right. \begin{array}{l} \text{if } \ell_i < \ell_j - 1 \\ \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array}$$

1.4304 Relation: [bi,d,di,e,m,mi,oi]

Complement relation.

$$\left\{ \begin{array}{l}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \\]-\infty, \underline{o_j} - \ell_i - 1] \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_j + \ell_i - 1] \end{array} \right. \begin{array}{l} \text{if } \ell_i < \ell_j - 1 \\ \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ \text{if } \ell_i = \ell_j - 1 \\ \text{if } \ell_i > \ell_j + 1 \\ \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array}$$

1.4305 Relation: [bi,d,di,e,m,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{l}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \\]-\infty, \underline{o_j} - \ell_i - 1] \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_j + \ell_i - 1] \end{array} \right. \begin{array}{l} \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ \text{if } \ell_i > \ell_j + 1 \\ \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array}$$

Complement relation.

Complement relation.

Complement relation.

Complement relation.

Complement relation.

742

1.4322 Relation: [bi,d,di,e,m,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_j + 2, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.4323 **Relation:** [bi,d,di,e,m,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - 2] \cup [\overline{o_j} + \underline{t_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \underline{\ell_i} - 1] \cup [\overline{o_j} - \underline{\ell_i} + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \underline{t_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \underline{\ell_i} - 1] \cup [\overline{o_j} - \underline{\ell_i} + 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i = \ell_j + 1 \\ [-\infty, \underline{o_j} - 2] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \underline{\ell_i} - 1] \cup [\overline{o_j} - \underline{\ell_i} + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \underline{\ell_i} - 1] \cup [\overline{o_j} - \underline{\ell_i} + 1, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\overline{o_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.4324 Relation: [bi,d,di,e,m,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j - 1, \underline{o}_j + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j - \ell_i + 1, \underline{o}_j - 1] \cup [\overline{o}_j + \ell_j - \ell_i, \underline{o}_j + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j + 1, \underline{o}_j + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j - \ell_i + 1, \underline{o}_j + \ell_j - \ell_i] \cup [\overline{o}_j + 1, \underline{o}_j + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j - \ell_i + 1, \underline{o}_j - 1] \cup [\overline{o}_j + 1, \underline{o}_j + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.4325 **Relation:** [bi,d,di,e,m,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j - \ell_i + 1, \underline{o}_j] \cup [\overline{o}_j + \ell_j - \ell_i, \underline{o}_j + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j - \ell_i + 1, \underline{o}_j + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j - \ell_j + 2, \underline{o}_j + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j - \ell_i + 1, \underline{o}_j + \ell_j - \ell_i] \cup [\overline{o}_j + 1, \underline{o}_j + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j - \ell_i + 1, \underline{o}_j - 1] \cup [\overline{o}_j + 1, \underline{o}_j + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.4326 Relation: [bi,d,di,e,mi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_j + \ell_i - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.4327 Relation: [bi,d,di,e,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 2\ell_j - 2\ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + 2\ell_j + \ell_i - 4] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.4328 **Relation:** [bi,d,di,e,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] & \text{if } \underline{\ell_i} < \underline{\ell_j} - 1 \wedge \underline{\ell_i} > 1 \\ [-\infty, \underline{o_j} - \underline{\ell_i}] & \text{if } \underline{\ell_i} = \underline{\ell_j} \\ [-\infty, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j} - 1, \underline{o_j}] & \text{if } \underline{\ell_i} = \underline{\ell_j} + 1 \wedge \underline{\ell_j} > 1 \\ [-\infty, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j}, \underline{o_j} + 1] & \text{if } \underline{\ell_i} = \underline{\ell_j} - 1 \wedge \underline{\ell_i} > 1 \\ [-\infty, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\underline{o_j}, \underline{o_j}] & \text{if } \underline{\ell_i} > \underline{\ell_j} + 1 \wedge \underline{\ell_j} > 1 \\ [-\infty, \underline{o_j} + \underline{\ell_j} - 1] & \text{if } \underline{\ell_i} \geq \underline{\ell_j} - 1 \wedge \underline{\ell_i} \leq \underline{\ell_j} + 1 \wedge \underline{\ell_i} \neq \underline{\ell_j} \wedge \min(\underline{\ell_i}, \underline{\ell_j}) = 1 \\ [-\infty, \underline{o_j} - \underline{\ell_i} + 1] \cup [\underline{o_j} + \underline{\ell_j} - 1, \underline{o_j} + \underline{\ell_j} - 1] & \text{if } \underline{\ell_i} \neq \underline{\ell_j} - 1 \wedge \underline{\ell_i} \neq \underline{\ell_j} \wedge \underline{\ell_i} \neq \underline{\ell_j} + 1 \wedge \min(\underline{\ell_i}, \underline{\ell_j}) = 1 \end{array} \right.$$

1.4329 Relation: [bi,d,di,e,mi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j \\ [-\infty, \underline{o_j}] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, o_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.4330 Relation: [bi,d,di,e,mi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, o_j + \ell_j - \ell_i] & \text{if } \ell_i \neq \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.4331 **Relation:** [bi,d,di,e,mi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o}_j] \cup [\overline{o}_j + \ell_j - \ell_i, \underline{o}_j + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o}_j - \ell_i] \cup [\overline{o}_j, \underline{o}_j] \cup [\overline{o}_j + \ell_j - \ell_i, \underline{o}_j + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o}_j - \ell_i] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o}_j - \ell_i] \cup [\overline{o}_j, \underline{o}_j + \ell_j - \ell_i] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o}_j - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o}_j - \ell_i] \cup [\overline{o}_j + \ell_j - \ell_i, \underline{o}_j + \ell_j - \ell_i] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o}_j + \ell_j - \ell_i] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.4332 Relation: [bi,d,di,e,mi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_j + \ell_i - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.4333 Relation: [bi,d,di,e,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.4334 Relation: [bi,d,di,e,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - \ell_j + \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.4335 Relation: [bi,d,di,e,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_j + \ell_i - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.4336 Relation: [bi,d,di,e,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_j + \ell_i - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.4337 Relation: [bi,d,di,e,mi,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}-1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j}-1] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4338 Relation: [bi,d,di,e,mi,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j}-1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \end{cases}$$

1.4339 Relation: [bi,d,di,e,mi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}-1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j}-1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_j + \ell_i - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.4340 Relation: [bi,d,di,e,mi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}-1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j}-1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j}-1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.4341 Relation: [bi,d,di,e,mi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \\]-\infty, \underline{o_j}-1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j}-1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.4342 Relation: [bi,d,di,e,o]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.4343 **Relation:** [bi,d,di,e,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [-\infty, \underline{o_j} - \ell_i] \cup [\underline{o_j} - 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j} + 1] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o_j} - \ell_i + 1] \cup [\underline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.4344 Relation: [bi,d,di,e,o,oi,s]

Complement relation.

$$\left. \begin{array}{l}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] \\] - \infty, \underline{o_j} + 1] \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] \\] - \infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j} + 1] \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] \end{array} \right\} \begin{array}{l} \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ \text{if } \ell_i = \ell_j \\ \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array}$$

1.4345 Relation: [bi,d,di,e,o,oi,s,si]

Complement relation.

$$\left. \begin{array}{l} [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j}] \\ [-\infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] \\ [-\infty, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{\ell_j}] \\ [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{\ell_j}] \\ [-\infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] \end{array} \right\} \begin{array}{l} \text{if } \underline{\ell_i} < \underline{\ell_j} - 1 \wedge \underline{\ell_i} = 1 \\ \text{if } \underline{\ell_i} = \underline{\ell_j} \wedge \underline{\ell_i} > 1 \\ \text{if } \underline{\ell_i} > \underline{\ell_j} + 1 \wedge \underline{\ell_j} = 1 \\ \text{if } \underline{\ell_i} \geq \underline{\ell_j} - 1 \wedge \underline{\ell_i} \leq \underline{\ell_j} + 1 \wedge \min(\underline{\ell_i}, \underline{\ell_j}) = 1 \\ \text{if } \underline{\ell_i} \neq \underline{\ell_j} \wedge \underline{\ell_i} > 1 \wedge \underline{\ell_j} > 1 \end{array}$$

1.4346 Relation: [bi,d,di,e,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.4347 Relation: [bi,d,di,e,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.4348 Relation: [bi,d,di,e,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.4349 Relation: [bi,d,di,e,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - \ell_j + \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.4350 Relation: [bi,d,di,e,oi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.4351 Relation: [bi,d,di,e,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_j + \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.4352 Relation: [bi,d,di,e,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.4353 Relation: [bi,d,di,e,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.4354 Relation: [bi,d,di,e,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.4355 Relation: [bi,d,di,e,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}-1] \cup [\overline{o_j}+\ell_j-\ell_i, \underline{o_j}+\ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j}-1] \cup [\overline{o_j}+1, \underline{o_j}+\ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j}+\ell_j-\ell_i] \cup [\overline{o_j}+1, \underline{o_j}+\ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4356 Relation: [bi,d,di,e,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j}+\ell_j-\ell_i, \underline{o_j}+\ell_j] & \text{if } \ell_i < \ell_j-1 \\]-\infty, \underline{o_j}+\ell_j] & \text{if } \ell_i = \ell_j-1 \\]-\infty, \underline{o_j}+\ell_j-\ell_i] \cup [\overline{o_j}+1, \underline{o_j}+\ell_j] & \text{if } \ell_i > \ell_j+1 \\]-\infty, \underline{o_j}-1] \cup [\overline{o_j}+1, \underline{o_j}+\ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j+1 \end{cases}$$

1.4357 Relation: [bi,d,di,f]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j}+\ell_j-\ell_i+1, \underline{o_j}+\ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j}+\ell_j-\ell_i] \cup [\overline{o_j}, \underline{o_j}+\ell_j] & \text{if } \ell_i > \ell_j+1 \\]-\infty, \underline{o_j}+\ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j+1 \end{cases}$$

1.4358 Relation: [bi,d,di,f,fi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j}+\ell_j-\ell_i+1, \underline{o_j}+\ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j}+\ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j}+\ell_j-\ell_i-1] \cup [\overline{o_j}, \underline{o_j}+\ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4359 Relation: [bi,d,di,f,fi,m]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}-\ell_i-1] \cup [\overline{o_j}-\ell_i+1, \underline{o_j}] \cup [\overline{o_j}+\ell_j-\ell_i+1, \underline{o_j}+\ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j}-\ell_i-1] \cup [\overline{o_j}-\ell_i+1, \underline{o_j}+\ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j}-\ell_i-1] \cup [\overline{o_j}, \underline{o_j}+\ell_j] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j}-\ell_i-1] \cup [\overline{o_j}-\ell_i+1, \underline{o_j}+\ell_j-\ell_i-1] \cup [\overline{o_j}, \underline{o_j}+\ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4360 Relation: [bi,d,di,f,fi,m,mi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}-\ell_i-1] \cup [\overline{o_j}-\ell_i+1, \underline{o_j}] \cup [\overline{o_j}+\ell_j-\ell_i+1, \underline{o_j}+\ell_j-1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j}-\ell_i-1] \cup [\overline{o_j}-\ell_i+1, \underline{o_j}+\ell_j-1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j}-\ell_i-1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j}-\ell_i-1] \cup [\overline{o_j}-\ell_i+1, \underline{o_j}+\ell_j-\ell_i-1] \cup [\overline{o_j}, \underline{o_j}+\ell_j-1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4361 Relation: [bi,d,di,f,fi,m,mi,o]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.4362 Relation: [bi,d,di,f,fi,m,mi,o,oi]

Complement relation.

$$]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}]$$

1.4363 Relation: [bi,d,di,f,fi,m,mi,o,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.4364 Relation: [bi,d,di,f,fi,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i \neq \ell_j \end{cases}$$

1.4365 Relation: [bi,d,di,f,fi,m,mi,o,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4366 Relation: [bi,d,di,f,fi,m,mi,o,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.4367 Relation: [bi,d,di,f,fi,m,mi,o,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.4368 Relation: [bi,d,di,f,fi,m,mi,o,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4369 Relation: [bi,d,di,f,fi,m,mi,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4370 Relation: [bi,d,di,f,fi,m,mi,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 2] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4371 Relation: [bi,d,di,f,fi,m,mi,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.4372 Relation: [bi,d,di,f,fi,m,mi,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4373 Relation: [bi,d,di,f,fi,m,mi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 2] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4374 Relation: [bi,d,di,f,fi,m,mi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.4375 Relation: [bi,d,di,f,fi,m,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.4376 Relation: [bi,d,di,f,fi,m,o]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.4377 Relation: [bi,d,di,f,fi,m,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_j > 1 \end{array} \right.$$

1.4378 Relation: [bi,d,di,f,fi,m,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.4379 Relation: [bi,d,di,f,fi,m,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \end{array} \right.$$

1.4380 Relation: [bi,d,di,f,fi,m,o,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4381 Relation: [bi,d,di,f,fi,m,o,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.4382 Relation: [bi,d,di,f,fi,m,o,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4383 Relation: [bi,d,di,f,fi,m,o,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4384 Relation: [bi,d,di,f,fi,m,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4385 Relation: [bi,d,di,f,fi,m,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4386 Relation: [bi,d,di,f,fi,m,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.4387 Relation: [bi,d,di,f,fi,m,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.4388 Relation: [bi,d,di,f,fi,m,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - 2] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.4389 Relation: [bi,d,di,f,fi,m,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j - \ell_i + 1, \underline{o}_j - 1] \cup [\overline{o}_j + \ell_j - \ell_i + 1, \underline{o}_j + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j - \ell_i + 1, \underline{o}_j + \ell_j] & \text{if } \ell_i = \ell_j \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j - \ell_i + 1, \underline{o}_j + \ell_j - \ell_i - 1] \cup [\overline{o}_j + 1, \underline{o}_j + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j, \underline{o}_j + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.4390 Relation: [bi,d,di,f,fi,m,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.4391 Relation: [bi,d,di,f,fi,mi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j}] & \text{if } \ell_i = 1 \\ [-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, o_j + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.4392 Relation: [bi,d,di,f,fi,mi,o]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j}] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.4393 Relation: [bi,d,di,f,fi,mi,o,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > 1 \end{cases}$$

1.4394 Relation: [bi,d,di,f,fi,mi,o,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.4395 Relation: [bi,d,di,f,fi,mi,o,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_i \neq \ell_j \end{cases}$$

1.4396 Relation: [bi,d,di,f,fi,mi,o,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4397 Relation: [bi,d,di,f,fi,mi,o,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.4398 Relation: [bi,d,di,f,fi,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.4399 Relation: [bi,d,di,f,fi,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j}] & \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.4400 Relation: [bi,d,di,f,fi,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.4401 Relation: [bi,d,di,f,fi,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j}] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.4402 Relation: [bi,d,di,f,fi,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j}] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.4403 Relation: [bi,d,di,f,fi,mi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.4404 Relation: [bi,d,di,f,fi,mi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4405 Relation: [bi,d,di,f,fi,mi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.4406 Relation: [bi,d,di,f,fi,mi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j}] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4407 Relation: [bi,d,di,f,fi,o]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.4408 Relation: [bi,d,di,f,fi,o,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.4409 Relation: [bi,d,di,f,fi,o,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.4410 Relation: [bi,d,di,f,fi,o,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \end{cases}$$

1.4411 Relation: [bi,d,di,f,fi,o,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4412 Relation: [bi,d,di,f,fi,o,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.4413 Relation: [bi,d,di,f,fi,o,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4414 Relation: [bi,d,di,f,fi,o,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4415 Relation: [bi,d,di,f,fi,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4416 Relation: [bi,d,di,f,fi,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4417 Relation: [bi,d,di,f,fi,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4418 Relation: [bi,d,di,f,fi,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4419 Relation: [bi,d,di,f,fi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4420 Relation: [bi,d,di,f,fi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4421 Relation: [bi,d,di,f,fi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4422 Relation: [bi,d,di,f,m]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.4423 Relation: [bi,d,di,f,m,mi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.4424 Relation: [bi,d,di,f,m,mi,o]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.4425 Relation: [bi,d,di,f,m,mi,o,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.4426 Relation: [bi,d,di,f,m,mi,o,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.4427 Relation: [bi,d,di,f,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.4428 Relation: [bi,d,di,f,m,mi,o,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4429 Relation: [bi,d,di,f,m,mi,o,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.4430 Relation: [bi,d,di,f,m,mi,o,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4431 Relation: [bi,d,di,f,m,mi,o,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] & \text{if } \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4432 Relation: [bi,d,di,f,m,mi,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i \leq \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.4433 Relation: [bi,d,di,f,m,mi,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.4434 Relation: [bi,d,di,f,m,mi,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \neq \ell_j + 1 \end{cases}$$

1.4435 **Relation:** [bi,d,di,f,m,mi,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4436 Relation: [bi,d,di,f,m,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.4437 **Relation:** [bi,d,di,f,m,mi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.4438 Relation: [bi,d,di,f,m,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] & \text{if } \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.4439 Relation: [bi,d,di,f,m,o]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.4440 **Relation:** [bi,d,di,f,m,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\underline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.4441 Relation: [bi,d,di,f,m,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.4442 Relation: [bi,d,di,f,m,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.4443 Relation: [bi,d,di,f,m,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.4444 Relation: [bi,d,di,f,m,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.4445 Relation: [bi,d,di,f,m,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.4446 Relation: [bi,d,di,f,m,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.4453 Relation: [bi,d,di,f,m,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4454 Relation: [bi,d,di,f,mi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.4455 Relation: [bi,d,di,f,mi,o]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.4456 Relation: [bi,d,di,f,mi,o,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.4457 Relation: [bi,d,di,f,mi,o,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.4458 Relation: [bi,d,di,f,mi,o,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i \neq \ell_j + 1 \wedge \ell_j = 1 \end{cases}$$

1.4459 Relation: [bi,d,di,f,mi,o,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i + 1] & \text{if } \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4460 Relation: [bi,d,di,f,mi,o,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.4461 Relation: [bi,d,di,f,mi,o,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i \neq \ell_j + 1 \wedge \ell_j = 1 \end{cases}$$

1.4462 Relation: [bi,d,di,f,mi,o,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i + 1] & \text{if } \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4463 Relation: [bi,d,di,f,mi,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] & \text{if } \ell_i \leq \ell_j + 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.4464 Relation: [bi,d,di,f,mi,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}-1] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.4465 Relation: [bi,d,di,f,mi,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}-1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \neq \ell_j + 1 \end{cases}$$

1.4466 Relation: [bi,d,di,f,mi,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4467 Relation: [bi,d,di,f,mi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}-1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j}-1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.4468 Relation: [bi,d,di,f,mi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}-1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j}-1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{cases}$$

1.4469 Relation: [bi,d,di,f,mi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i + 1] & \text{if } \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4470 Relation: [bi,d,di,f,o]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.4471 **Relation:** [bi,d,di,f,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \underline{\ell_i} + 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.4472 **Relation:** [bi,d,di,f,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \underline{\ell_i} + 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j}] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.4473 **Relation:** [bi,d,di,f,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.4474 Relation: [bi,d,di,f,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.4475 Relation: [bi,d,di,f,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.4476 Relation: [bi,d,di,f,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.4477 Relation: [bi,d,di,f,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.4478 Relation: [bi,d,di,f,oi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.4479 Relation: [bi,d,di,f,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.4480 Relation: [bi,d,di,f,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.4481 Relation: [bi,d,di,f,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4482 Relation: [bi,d,di,f,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.4483 Relation: [bi,d,di,f,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4484 Relation: [bi,d,di,f,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4485 Relation: [bi,d,di,fi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4486 Relation: [bi,d,di,fi,m]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4487 Relation: [bi,d,di,fi,m,mi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4488 Relation: [bi,d,di,fi,m,mi,o]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \end{cases}$$

1.4489 Relation: [bi,d,di,fi,m,mi,o,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.4490 Relation: [bi,d,di,fi,m,mi,o,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.4491 Relation: [bi,d,di,fi,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4492 Relation: [bi,d,di,fi,m,mi,o,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4493 Relation: [bi,d,di,fi,m,mi,o,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.4494 **Relation:** [bi,d,di,fi,m,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \neq \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.4495 Relation: [bi,d,di,fi,m,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.4496 Relation: [bi,d,di,fi,m,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.4497 Relation: [bi,d,di,fi,m,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, o_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.4498 **Relation:** [bi,d,di,fi,m,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.4499 **Relation:** [bi,d,di,fi,m,mi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] -\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.4500 Relation: [bi,d,di,fi,m,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.4501 Relation: [bi,d,di,fi,m,mi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.4502 Relation: [bi,d,di,fi,m,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.4503 Relation: [bi,d,di,fi,m,o]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \end{cases}$$

1.4504 **Relation:** [bi,d,di,fi,m,o,oi]

Complement relation.

$$\left. \begin{array}{l} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] \end{array} \right\} \begin{array}{l} \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array}$$

1.4505 Relation: [bi,d,di,fi,m,o,oi,s]

Complement relation.

$$\left. \begin{aligned} & \left] -\infty, \underline{o_j} - \ell_i - 1 \right] \cup \left[\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i \right] \cup \left[\overline{o_j} + \ell_j, \underline{o_j} + \ell_j \right] && \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ & \left] -\infty, \underline{o_j} - \ell_i - 1 \right] \cup \left[\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j \right] && \text{if } \min(\ell_i, \ell_j) = 1 \\ & \left] -\infty, \underline{o_j} - \ell_i - 1 \right] \cup \left[\overline{o_j}, o_j \right] \cup \left[\overline{o_j} + \ell_j, o_j + \ell_j \right] && \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{aligned} \right\}$$

1.4506 Relation: [bi,d,di,fi,m,o,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4507 Relation: [bi,d,di,fi,m,o,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4508 Relation: [bi,d,di,fi,m,o,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.4509 Relation: [bi,d,di,fi,m,o,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \neq \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \end{cases}$$

1.4510 Relation: [bi,d,di,fi,m,o,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4511 Relation: [bi,d,di,fi,m,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.4517 Relation: [bi,d,di,fi,m,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4518 Relation: [bi,d,di,fi,mi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4519 Relation: [bi,d,di,fi,mi,o]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \end{cases}$$

1.4520 Relation: [bi,d,di,fi,mi,o,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.4521 Relation: [bi,d,di,fi,mi,o,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.4522 Relation: [bi,d,di,fi,mi,o,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4523 Relation: [bi,d,di,fi,mi,o,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4524 Relation: [bi,d,di,fi,mi,o,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.4525 Relation: [bi,d,di,fi,mi,o,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \neq \ell_j - 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4526 Relation: [bi,d,di,fi,mi,o,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4527 Relation: [bi,d,di,fi,mi,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4528 Relation: [bi,d,di,fi,mi,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j}] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4529 Relation: [bi,d,di,fi,mi,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j}] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4530 Relation: [bi,d,di,fi,mi,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4531 Relation: [bi,d,di,fi,mi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4532 Relation: [bi,d,di,fi,mi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4533 Relation: [bi,d,di,fi,mi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4534 Relation: [bi,d,di,fi,o]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \end{cases}$$

1.4535 Relation: [bi,d,di,fi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.4536 Relation: [bi,d,di,fi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.4537 Relation: [bi,d,di,fi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.4538 Relation: [bi,d,di,fi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.4539 Relation: [bi,d,di,fi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.4540 Relation: [bi,d,di,fi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \neq \ell_j - 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \end{array} \right.$$

1.4541 Relation: [bi,d,di,fi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j}] \cup [\overline{o_j} + \underline{t_j} - 1, \underline{o_j} + \underline{t_j}] & \text{if } \ell_i < \underline{t_j} - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \underline{t_i}] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \underline{t_j} - \underline{t_i}, \underline{o_j} + \underline{t_j}] & \text{if } \ell_i < \underline{t_j} - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} + \underline{t_j}] & \text{if } \ell_i \leq \underline{t_j} \wedge \ell_i \geq \underline{t_j} - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \underline{t_i}] \cup [\overline{o_j}, \underline{o_j} + \underline{t_j}] & \text{if } \ell_i \leq \underline{t_j} \wedge \ell_i \geq \underline{t_j} - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \underline{t_i}] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{t_j}] & \text{if } \ell_i > \underline{t_j} \end{array} \right.$$

1.4542 **Relation:** [bi,d,di,fi,oi]

Complement relation.

$$\begin{array}{ll} \left[-\infty, \underline{o_j} \right] \cup \left[\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j \right] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ \left[-\infty, \underline{o_j} \right] \cup \left[\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i \right] \cup \left[\overline{o_j} + \ell_j, \underline{o_j} + \ell_j \right] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \left[-\infty, \underline{o_j} + \ell_j \right] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ \left[-\infty, \underline{o_j} + \ell_j - \ell_i \right] \cup \left[\overline{o_j} + \ell_j, \underline{o_j} + \ell_j \right] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ \left[-\infty, \underline{o_j} - \ell_i \right] \cup \left[\overline{o_j}, o_j + 1 \right] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ \left[-\infty, o_j + \ell_j - \ell_i - 1 \right] \cup \left[\overline{o_j}, o_j \right] \cup \left[\overline{o_j} + \ell_j, o_j + \ell_j \right] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array}$$

1.4543 **Relation:** [bi,d,di,fi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.4544 **Relation:** [bi,d,di,fi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j}] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.4545 **Relation:** [bi,d,di,fi,oi,si]

Complement relation.

$$\left. \begin{array}{l} [-\infty, \underline{o}_j] \cup [\overline{o}_j + \ell_j - 1, \underline{o}_j + \ell_j] \\ [-\infty, \underline{o}_j] \cup [\overline{o}_j + \ell_j - \ell_i, \underline{o}_j + \ell_j - \ell_i] \cup [\overline{o}_j + \ell_j, \underline{o}_j + \ell_j] \\ [-\infty, \underline{o}_j + \ell_j] \\ [-\infty, \underline{o}_j + \ell_j - \ell_i] \cup [\overline{o}_j + \ell_j, \underline{o}_j + \ell_j] \\ [-\infty, \underline{o}_j + \ell_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j, \underline{o}_j + \ell_j] \end{array} \right\} \begin{array}{l} \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ \text{if } \ell_i > \ell_j \end{array}$$

1.4546 Relation: [bi,d,di,fi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4547 Relation: [bi,d,di,fi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4548 Relation: [bi,d,di,fi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4549 Relation: [bi,d,di,m]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.4550 Relation: [bi,d,di,m,mi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.4551 Relation: [bi,d,di,m,mi,o]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.4552 Relation: [bi,d,di,m,mi,o,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.4553 Relation: [bi,d,di,m,mi,o,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.4554 Relation: [bi,d,di,m,mi,o,oi,s,si]

Complement relation.

$$] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i]$$

1.4555 Relation: [bi,d,di,m,mi,o,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i = \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.4556 Relation: [bi,d,di,m,mi,o,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.4557 Relation: [bi,d,di,m,mi,o,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4558 Relation: [bi,d,di,m,mi,o,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] & \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4559 Relation: [bi,d,di,m,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.4560 Relation: [bi,d,di,m,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{\sigma_j} - \ell_i - 1] \cup [\underline{\sigma_j} - \ell_i + 1, \underline{\sigma_j} - 1] \cup [\underline{\sigma_j} + \ell_j - \ell_i, \underline{\sigma_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{\sigma_j} - \ell_i - 1] \cup [\underline{\sigma_j} + \ell_j - 1, \underline{\sigma_j} + \ell_j - 1] & \text{if } \ell_i = 1 \\ [-\infty, \underline{\sigma_j} - \ell_i - 1] \cup [\underline{\sigma_j} - \ell_i + 1, \underline{\sigma_j} + \ell_j - \ell_i] \cup [\underline{\sigma_j}, \underline{\sigma_j}] & \text{if } \ell_i > \ell_j + 1 \\ [-\infty, \underline{\sigma_j} - \ell_i - 1] \cup [\underline{\sigma_j} - \ell_i + 1, \underline{\sigma_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.4561 **Relation:** [bi,d,di,m,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 2] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.4562 Relation: [bi,d,di,m,mi,oi,si]

Complement relation.

$$\begin{cases} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \geq \ell_j - 1 \end{cases}$$

1.4563 **Relation:** [bi,d,di,m,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.4564 **Relation:** [bi,d,di,m,mi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.4571 Relation: [bi,d,di,m,o,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j - \ell_i, \underline{o}_j + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \\]-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j - \ell_i, \underline{o}_j + \ell_j - \ell_i] \cup [\overline{o}_j, \underline{o}_j + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.4572 Relation: [bi,d,di,m,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j - \ell_i, \underline{o}_j + \ell_j] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j - \ell_i, \underline{o}_j + \ell_j - \ell_i] \cup [\overline{o}_j + 1, \underline{o}_j + \ell_j] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.4573 **Relation:** [bi,d,di,m,o,si]

Complement relation.

$$\left. \begin{aligned} &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] && \text{if } \ell_i < \ell_j - 1 \\ &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j} + \ell_j] && \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] && \text{if } \ell_i > \ell_j \end{aligned} \right\}$$

1.4574 Relation: [bi,d,di,m,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + 1] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\underline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.4575 **Relation:** [bi,d,di,m,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\underline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.4576 **Relation:** [bi,d,di,m,oi,s,si]

Complement relation.

$$\left. \begin{aligned} &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{aligned} \right\}$$

1.4577 **Relation:** [bi,d,di,m,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \end{array} \right.$$

1.4578 **Relation:** [bi,d,di,m,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - 2] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.4579 Relation: [bi,d,di,m,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.4580 Relation: [bi,d,di,m,si]

Complement relation.

$$\left. \begin{aligned} &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] && \text{if } \ell_i < \ell_j - 1 \\ &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] && \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] && \text{if } \ell_i > \ell_j \end{aligned} \right\}$$

1.4581 Relation: [bi,d,di,mi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.4582 Relation: [bi,d,di,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.4583 Relation: [bi,d,di,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.4584 Relation: [bi,d,di,mi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.4585 Relation: [bi,d,di,mi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i + 1] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_j > 1 \end{array} \right.$$

1.4586 Relation: [bi,d,di,mi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.4587 Relation: [bi,d,di,mi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.4588 Relation: [bi,d,di,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i + 1] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.4589 Relation: [bi,d,di,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.4590 Relation: [bi,d,di,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.4591 Relation: [bi,d,di,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.4592 Relation: [bi,d,di,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.4593 Relation: [bi,d,di,mi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \geq \ell_j - 1 \end{array} \right.$$

1.4594 Relation: [bi,d,di,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.4595 Relation: [bi,d,di,mi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.4596 Relation: [bi,d,di,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i + 1] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.4597 Relation: [bi,d,di,o]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.4598 Relation: [bi,d,di,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.4599 Relation: [bi,d,di,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.4600 Relation: [bi,d,di,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.4601 Relation: [bi,d,di,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.4602 Relation: [bi,d,di,o,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.4603 Relation: [bi,d,di,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \neq \ell_j - 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.4604 **Relation:** [bi,d,di,o,si]

Complement relation.

$$\left. \begin{array}{l} [-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] \\ [-\infty, \underline{o_j} + \ell_j] \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] \\ [-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] \end{array} \right\} \begin{array}{l} \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array}$$

1.4605 Relation: [bi,d,di,oi]

Complement relation.

$$\begin{cases}
] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\
] - \infty, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\
] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\
] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\
] - \infty, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\
] - \infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1
\end{cases}$$

1.4606 Relation: [bi,d,di,oi,s]

Complement relation.

$$\begin{cases}
] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\
] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\
] - \infty, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\
] - \infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\
] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\
] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1
\end{cases}$$

1.4607 Relation: [bi,d,di,oi,s,si]

Complement relation.

$$\begin{cases}
] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\
] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\
] - \infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\
] - \infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\
] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\
] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1
\end{cases}$$

1.4608 Relation: [bi,d,di,oi,si]

Complement relation.

$$\begin{cases}
] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\
] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\
] - \infty, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\
] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i > 1
\end{cases}$$

1.4609 Relation: [bi,d,di,s]

Complement relation.

$$\begin{cases}
] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\
] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\
] - \infty, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1
\end{cases}$$

1.4610 Relation: [bi,d,di,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}-1] \cup [\overline{o_j}+\ell_j-\ell_i, \underline{o_j}+\ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j}+\ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j}+\ell_j-\ell_i] \cup [\overline{o_j}+1, \underline{o_j}+\ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4611 Relation: [bi,d,di,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j}+\ell_j-\ell_i, \underline{o_j}+\ell_j] & \text{if } \ell_i < \ell_j-1 \\]-\infty, \underline{o_j}+\ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j-1 \\]-\infty, \underline{o_j}+\ell_j-\ell_i] \cup [\overline{o_j}+1, \underline{o_j}+\ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4612 Relation: [bi,d,e]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j}+\ell_j-\ell_i, \underline{o_j}+\ell_j] & \text{if } \ell_i < \ell_j-1 \\]-\infty, \underline{o_j}-1] \cup [\overline{o_j}+1, \underline{o_j}+\ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j}+\ell_j] & \text{if } \ell_i \geq \ell_j-1 \wedge \ell_i \neq \ell_j \end{cases}$$

1.4613 Relation: [bi,d,e,f]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j}+\ell_j-\ell_i+1, \underline{o_j}+\ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j}-1] \cup [\overline{o_j}+1, \underline{o_j}+\ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j}+\ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4614 Relation: [bi,d,e,f,fi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j}+\ell_j-\ell_i+1, \underline{o_j}+\ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j}+\ell_j-\ell_i-1] \cup [\overline{o_j}+\ell_j-\ell_i+1, \underline{o_j}+\ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.4615 Relation: [bi,d,e,f,fi,m]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}-\ell_i-1] \cup [\overline{o_j}-\ell_i+1, \underline{o_j}] \cup [\overline{o_j}+\ell_j-\ell_i+1, \underline{o_j}+\ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j}-\ell_i-1] \cup [\overline{o_j}+\ell_j-\ell_i+1, \underline{o_j}+1] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j}-\ell_i-1] \cup [\overline{o_j}-\ell_i+1, \underline{o_j}+\ell_j-\ell_i-1] \cup [\overline{o_j}+\ell_j-\ell_i+1, \underline{o_j}+\ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.4616 Relation: [bi,d,e,f,fi,m,mi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}-\ell_i-1] \cup [\overline{o_j}-\ell_i+1, \underline{o_j}] \cup [\overline{o_j}+\ell_j-\ell_i+1, \underline{o_j}+\ell_j-1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j}-\ell_i-1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j}-\ell_i-1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j+1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j}-\ell_i-1] \cup [\overline{o_j}+\ell_j-\ell_i+1, \underline{o_j}] & \text{if } \ell_i > \ell_j+1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j}-\ell_i-1] \cup [\overline{o_j}-\ell_i+1, \underline{o_j}+\ell_j-\ell_i-1] \cup [\overline{o_j}+\ell_j-\ell_i+1, \underline{o_j}+\ell_j-1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.4617 Relation: [bi,d,e,f,fi,m,mi,o]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.4618 Relation: [bi,d,e,f,fi,m,mi,o,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4619 Relation: [bi,d,e,f,fi,m,mi,o,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4620 Relation: [bi,d,e,f,fi,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i \leq \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.4621 Relation: [bi,d,e,f,fi,m,mi,o,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.4622 Relation: [bi,d,e,f,fi,m,mi,o,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > 1 \end{cases}$$

1.4623 **Relation:** [bi,d,e,f,fi,m,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.4624 **Relation:** [bi,d,e,f,fi,m,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.4625 **Relation:** [bi,d,e,f,fi,m,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - 2] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 2, \underline{o_j}] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, o_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.4626 **Relation:** [bi,d,e,f,fi,m,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.4627 **Relation:** [bi,d,e,f,fi,m,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j - \ell_i + 1, \underline{o}_j + \ell_j - \ell_i - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j - \ell_i + 1, \underline{o}_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j - \ell_i + 1, \underline{o}_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j - \ell_i + 1, \underline{o}_j + \ell_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j - \ell_i + 1, \underline{o}_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i < \ell_j \\]-\infty, o_j - \ell_i - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, o_j + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, o_j + \ell_j - \ell_i - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, o_j - \ell_i - 1] & \text{if } \ell_i = 1 \\]-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, o_j - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, o_j] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, o_j + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, o_j + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

Complement relation.

$$\left. \begin{array}{l} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \\ [-\infty, \underline{o_j} - \ell_i - 1] \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \end{array} \right\} \begin{array}{l} \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array}$$

Complement relation.

$$\left. \begin{array}{l}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \\]-\infty, \underline{o_j} - \ell_i - 1] \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \end{array} \right\} \begin{array}{l} \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array}$$

Complement relation.

$$\begin{cases} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.4634 Relation: [bi,d,e,f,fi,m,o,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4635 Relation: [bi,d,e,f,fi,m,o,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.4636 Relation: [bi,d,e,f,fi,m,o,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.4637 Relation: [bi,d,e,f,fi,m,o,s]

Complement relation.

$$] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j]$$

1.4638 Relation: [bi,d,e,f,fi,m,o,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.4639 Relation: [bi,d,e,f,fi,m,o,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.4640 Relation: [bi,d,e,f,fi,m,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4647 Relation: [bi,d,e,f,fi,mi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.4648 Relation: [bi,d,e,f,fi,mi,o]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.4649 Relation: [bi,d,e,f,fi,mi,o,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.4650 Relation: [bi,d,e,f,fi,mi,o,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4651 Relation: [bi,d,e,f,fi,mi,o,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_i \leq \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.4652 Relation: [bi,d,e,f,fi,mi,o,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.4653 Relation: [bi,d,e,f,fi,mi,o,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}-1] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j}-\ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > 1 \end{cases}$$

1.4654 Relation: [bi,d,e,f,fi,mi,o,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}-\ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j}-\ell_i] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j}-\ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}-1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j}-\ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}-1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j}-\ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.4655 Relation: [bi,d,e,f,fi,mi,o,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}-\ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j}-\ell_i] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j}-\ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}-1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j}-\ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}-1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j}-\ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.4656 Relation: [bi,d,e,f,fi,mi,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j}-1] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4657 Relation: [bi,d,e,f,fi,mi,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}-1] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4658 Relation: [bi,d,e,f,fi,mi,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i = \ell_j + 1 \\]-\infty, \underline{o_j}-1] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}-1] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.4659 Relation: [bi,d,e,f,fi,mi,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.4660 Relation: [bi,d,e,f,fi,mi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4661 Relation: [bi,d,e,f,fi,mi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.4662 Relation: [bi,d,e,f,fi,mi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.4663 Relation: [bi,d,e,f,fi,o]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.4664 Relation: [bi,d,e,f,fi,o,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - 2\ell_i + 2] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.4665 Relation: [bi,d,e,f,fi,o,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4666 Relation: [bi,d,e,f,fi,o,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.4667 Relation: [bi,d,e,f,fi,o,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.4668 Relation: [bi,d,e,f,fi,o,s]

Complement relation.

$$]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j]$$

1.4669 Relation: [bi,d,e,f,fi,o,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.4670 Relation: [bi,d,e,f,fi,o,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.4671 Relation: [bi,d,e,f,fi,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4672 Relation: [bi,d,e,f,fi,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4673 Relation: [bi,d,e,f,fi,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.4674 Relation: [bi,d,e,f,fi,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.4675 Relation: [bi,d,e,f,fi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4676 Relation: [bi,d,e,f,fi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.4677 Relation: [bi,d,e,f,fi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.4678 Relation: [bi,d,e,f,m]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4679 Relation: [bi,d,e,f,m,mi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.4680 Relation: [bi,d,e,f,m,mi,o]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 2] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.4681 Relation: [bi,d,e,f,m,mi,o,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4682 Relation: [bi,d,e,f,m,mi,o,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4683 Relation: [bi,d,e,f,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4684 Relation: [bi,d,e,f,m,mi,o,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4685 Relation: [bi,d,e,f,m,mi,o,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4686 Relation: [bi,d,e,f,m,mi,o,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4687 Relation: [bi,d,e,f,m,mi,o,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4688 Relation: [bi,d,e,f,m,mi,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i \neq \ell_j \end{cases}$$

1.4689 Relation: [bi,d,e,f,m,mi,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4690 Relation: [bi,d,e,f,m,mi,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > 1 \end{cases}$$

1.4691 Relation: [bi,d,e,f,m,mi,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.4692 Relation: [bi,d,e,f,m,mi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4693 Relation: [bi,d,e,f,m,mi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.4694 Relation: [bi,d,e,f,m,mi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.4695 Relation: [bi,d,e,f,m,o]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4696 Relation: [bi,d,e,f,m,o,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4697 Relation: [bi,d,e,f,m,o,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4698 Relation: [bi,d,e,f,m,o,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4699 Relation: [bi,d,e,f,m,o,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4700 Relation: [bi,d,e,f,m,o,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4701 Relation: [bi,d,e,f,m,o,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4702 Relation: [bi,d,e,f,m,o,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4703 Relation: [bi,d,e,f,m,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4704 Relation: [bi,d,e,f,m,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4705 Relation: [bi,d,e,f,m,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > 1 \end{cases}$$

1.4706 Relation: [bi,d,e,f,m,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.4707 Relation: [bi,d,e,f,m,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4708 Relation: [bi,d,e,f,m,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.4709 Relation: [bi,d,e,f,m,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.4710 Relation: [bi,d,e,f,mi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j}] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.4711 Relation: [bi,d,e,f,mi,o]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j}] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.4712 Relation: [bi,d,e,f,mi,o,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j}] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.4713 Relation: [bi,d,e,f,mi,o,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j}] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4714 Relation: [bi,d,e,f,mi,o,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] & \text{if } \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4715 Relation: [bi,d,e,f,mi,o,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4716 Relation: [bi,d,e,f,mi,o,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j}] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4717 Relation: [bi,d,e,f,mi,o,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] & \text{if } \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4718 Relation: [bi,d,e,f,mi,o,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4719 Relation: [bi,d,e,f,mi,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j}] & \text{if } \ell_i \neq \ell_j \end{cases}$$

1.4720 Relation: [bi,d,e,f,mi,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4721 Relation: [bi,d,e,f,mi,oi,s,si]

Complement relation.

$$] - \infty, \underline{o_j} - 1]$$

1.4722 Relation: [bi,d,e,f,mi,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - 1] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.4723 Relation: [bi,d,e,f,mi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] & \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4724 Relation: [bi,d,e,f,mi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] & \text{if } \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.4725 Relation: [bi,d,e,f,mi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - 1] & \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.4726 Relation: [bi,d,e,f,o]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4727 Relation: [bi,d,e,f,o,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4728 Relation: [bi,d,e,f,o,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4729 Relation: [bi,d,e,f,o,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4730 Relation: [bi,d,e,f,o,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4731 Relation: [bi,d,e,f,o,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4732 Relation: [bi,d,e,f,o,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4733 Relation: [bi,d,e,f,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.4734 Relation: [bi,d,e,f,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i \neq \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.4735 Relation: [bi,d,e,f,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.4736 Relation: [bi,d,e,f,oi,s,si]

Complement relation.

$$] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}]$$

1.4737 Relation: [bi,d,e,f,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.4738 Relation: [bi,d,e,f,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.4739 Relation: [bi,d,e,f,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.4740 Relation: [bi,d,e,f,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.4741 Relation: [bi,d,e,fi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.4742 Relation: [bi,d,e,fi,m]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.4743 Relation: [bi,d,e,fi,m,mi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.4744 Relation: [bi,d,e,fi,m,mi,o]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - 2] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \end{cases}$$

1.4745 Relation: [bi,d,e,fi,m,mi,o,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4746 Relation: [bi,d,e,fi,m,mi,o,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4747 Relation: [bi,d,e,fi,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.4748 Relation: [bi,d,e,fi,m,mi,o,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.4749 Relation: [bi,d,e,fi,m,mi,o,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4750 Relation: [bi,d,e,fi,m,mi,o,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.4751 Relation: [bi,d,e,fi,m,mi,o,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.4762 Relation: [bi,d,e,fi,m,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, o_j + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - 1, o_j + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, o_j + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.4763 **Relation:** [bi,d,e,fi,m,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o}_j - 2] \cup [\overline{o}_j, o_j] \cup [\overline{o}_j + \ell_j - \ell_i, \underline{o}_j + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j, o_j] \cup [\overline{o}_j + \ell_j - \ell_i, \underline{o}_j + \ell_j - \ell_i] \cup [\overline{o}_j + \ell_j, \underline{o}_j + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o}_j - 2] \cup [\overline{o}_j, o_j + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j, o_j + \ell_j - \ell_i] \cup [\overline{o}_j + \ell_j, o_j + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j - \ell_i + 1, \underline{o}_j - 1] \cup [\overline{o}_j + \ell_j, \underline{o}_j + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j, o_j + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.4764 Relation: [bi,d,e,fi,m,o,s]

Complement relation.

$$\begin{cases} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.4765 Relation: [bi,d,e,fi,m,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.4766 Relation: [bi,d,e,fi,m,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.4767 Relation: [bi,d,e,fi,m,oi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + 2\ell_j - 2\ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.4773 Relation: [bi,d,e,fi,m,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.4774 Relation: [bi,d,e,fi,mi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.4775 Relation: [bi,d,e,fi,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + 2\ell_j - 2\ell_i - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - 2\ell_i + 2] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.4776 Relation: [bi,d,e,fi,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.4777 Relation: [bi,d,e,fi,mi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.4778 Relation: [bi,d,e,fi,mi,o,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.4779 Relation: [bi,d,e,fi,mi,o,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + 2\ell_j - 2\ell_i - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.4780 Relation: [bi,d,e,fi,mi,o,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4781 Relation: [bi,d,e,fi,mi,o,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - \ell_i + 2, \underline{o_j} + 2\ell_j - 3] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.4782 Relation: [bi,d,e,fi,mi,o,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} + 2\ell_j - \ell_i - 2] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.4783 Relation: [bi,d,e,fi,mi,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} + 2\ell_j - 2\ell_i - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4784 Relation: [bi,d,e,fi,mi,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - 1] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4785 Relation: [bi,d,e,fi,mi,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.4786 Relation: [bi,d,e,fi,mi,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.4787 Relation: [bi,d,e,fi,mi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4788 Relation: [bi,d,e,fi,mi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.4789 **Relation:** [bi,d,e,fi,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \underline{o_j} + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.4790 **Relation:** [bi,d,e,fi,o]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \neq \ell_j + 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.4791 Relation: [bi,d,e,fi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j} + 1] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 2\ell_i + 2] \cup [\underline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.4792 Relation: [bi,d,e,fi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.4793 **Relation:** [bi,d,e,fi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.4794 Relation: [bi,d,e,fi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.4795 Relation: [bi,d,e,fi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.4796 Relation: [bi,d,e,fi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.4797 Relation: [bi,d,e,fi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.4798 Relation: [bi,d,e,fi,oi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 2\ell_i + 2] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.4799 Relation: [bi,d,e,fi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.4800 Relation: [bi,d,e,fi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.4801 Relation: [bi,d,e,fi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.4802 Relation: [bi,d,e,fi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.4803 Relation: [bi,d,e,fi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - 2] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.4804 Relation: [bi,d,e,fi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.4805 Relation: [bi,d,e,m]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_j + 2, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.4806 Relation: [bi,d,e,m,mi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \end{cases}$$

1.4807 Relation: [bi,d,e,m,mi,o]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - 2] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_j + \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4808 Relation: [bi,d,e,m,mi,o,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i = \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4809 Relation: [bi,d,e,m,mi,o,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4810 Relation: [bi,d,e,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4811 Relation: [bi,d,e,m,mi,o,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i = \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4812 Relation: [bi,d,e,m,mi,o,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \end{cases}$$

1.4813 Relation: [bi,d,e,m,mi,o,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4814 Relation: [bi,d,e,m,mi,o,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_j + \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4815 Relation: [bi,d,e,m,mi,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + 2\ell_j - 2\ell_i - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4816 Relation: [bi,d,e,m,mi,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4817 Relation: [bi,d,e,m,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.4818 Relation: [bi,d,e,m,mi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.4819 Relation: [bi,d,e,m,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.4820 Relation: [bi,d,e,m,mi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.4821 Relation: [bi,d,e,m,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.4828 **Relation:** [bi,d,e,m,o,s,si]

Complement relation.

$$\left. \begin{aligned} &] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] && \text{if } \ell_i < \ell_j \\ &] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] && \text{if } \ell_i = \ell_j \\ &] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] && \text{if } \ell_i > \ell_j \end{aligned} \right\}$$

1.4829 **Relation:** [bi,d,e,m,o,si]

Complement relation.

$$\begin{cases} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_j + \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4830 **Relation:** [bi,d,e,m,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_j + 2, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + 2\ell_j - 2\ell_i - 1] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.4831 **Relation:** [bi,d,e,m,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.4832 **Relation:** [bi,d,e,m,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j - \ell_i + 1, \underline{o}_j - 1] \cup [\overline{o}_j + \ell_j - \ell_i, \underline{o}_j + \ell_j - \ell_i] \cup [\overline{o}_j + \ell_j, \underline{o}_j + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j - 1, \underline{o}_j + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j + 1, \underline{o}_j + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j - \ell_i + 1, \underline{o}_j - 1] \cup [\overline{o}_j + \ell_j, \underline{o}_j + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.4833 Relation: [bi,d,e,m,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_j + 2, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.4834 Relation: [bi,d,e,m,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 2] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 2] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.4835 Relation: [bi,d,e,m,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \end{array} \right.$$

1.4836 Relation: [bi,d,e,m,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_j + 2, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.4837 Relation: [bi,d,e,mi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \end{array} \right.$$

1.4838 Relation: [bi,d,e,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + 2\ell_j - 2\ell_i - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - \ell_j + \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j}] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.4839 Relation: [bi,d,e,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.4840 Relation: [bi,d,e,mi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j}] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.4841 Relation: [bi,d,e,mi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.4842 Relation: [bi,d,e,mi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + 2\ell_j - 3] & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.4843 Relation: [bi,d,e,mi,o,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}-1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j}-\ell_i] \cup [\overline{o_j}+1, \underline{o_j}+\ell_j-1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j-1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j}] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j}-\ell_i] \cup [\overline{o_j}+\ell_j-\ell_i, \underline{o_j}+\ell_j-1] & \text{if } \ell_i \neq \ell_j-1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4844 Relation: [bi,d,e,mi,o,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}-\ell_i] \cup [\overline{o_j}+\ell_j-\ell_i, \underline{o_j}+\ell_j-1] & \text{if } \ell_i < \ell_j-1 \\]-\infty, \underline{o_j}-1] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j}-\ell_i] \cup [\overline{o_j}+1, \underline{o_j}+\ell_j-1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j-1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j}-\ell_i] \cup [\overline{o_j}+\ell_j-\ell_i, \underline{o_j}-1] \cup [\overline{o_j}+1, \underline{o_j}+\ell_j-1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4845 Relation: [bi,d,e,mi,o,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j}+\ell_j-1, \underline{o_j}+\ell_j-1] & \text{if } \ell_i < \ell_j-1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j}-\ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j}+\ell_j-\ell_i, \underline{o_j}+\ell_j-1] & \text{if } \ell_i < \ell_j-1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j}-\ell_i] \cup [\overline{o_j}-\ell_j+\ell_i+1, \underline{o_j}+\ell_j-1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j-1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j}-\ell_i] \cup [\overline{o_j}+\ell_j-\ell_i, \underline{o_j}-1] \cup [\overline{o_j}+1, \underline{o_j}+\ell_j-1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j}+2\ell_j-3] & \text{if } \ell_i \geq \ell_j-1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.4846 Relation: [bi,d,e,mi,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j}+\ell_j-\ell_i, \underline{o_j}+\ell_j-\ell_i] & \text{if } \ell_i < \ell_j-1 \\]-\infty, \underline{o_j}+2\ell_j-2\ell_i-1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j-1 \\]-\infty, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4847 Relation: [bi,d,e,mi,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}-1] \cup [\overline{o_j}+\ell_j-\ell_i, \underline{o_j}+\ell_j-\ell_i] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j}-1] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4848 Relation: [bi,d,e,mi,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}-1] \cup [\overline{o_j}+\ell_j-\ell_i, \underline{o_j}+\ell_j-\ell_i] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j}-1] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.4849 Relation: [bi,d,e,mi,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j - 1 \\]-\infty, \underline{o_j} - 1] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.4850 Relation: [bi,d,e,mi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4851 Relation: [bi,d,e,mi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - 1] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \end{cases}$$

1.4852 Relation: [bi,d,e,mi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \\]-\infty, \underline{o_j} - 1] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.4853 Relation: [bi,d,e,o]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.4854 Relation: [bi,d,e,o,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.4855 **Relation:** [bi,d,e,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [-\infty, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.4856 **Relation:** [bi,d,e,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\underline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} < \underline{\ell_j} \wedge \underline{\ell_i} > 1 \\ [-\infty, \underline{o_j} - 1] \cup [\underline{o_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} < \underline{\ell_j} - 1 \wedge \underline{\ell_i} = 1 \\ [-\infty, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} = \underline{\ell_j} \wedge \underline{\ell_i} > 1 \\ [-\infty, \underline{o_j} - \underline{\ell_i}] \cup [\underline{o_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\underline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} > \underline{\ell_j} \wedge \underline{\ell_j} > 1 \\ [-\infty, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} \geq \underline{\ell_j} - 1 \wedge \min(\underline{\ell_i}, \underline{\ell_j}) = 1 \end{array} \right.$$

1.4857 **Relation:** [bi,d,e,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.4858 **Relation:** [bi,d,e,o,s]

Complement relation.

$$\begin{cases} [-\infty, \underline{o}_j - \ell_i] \cup [\overline{o}_j + 1, \underline{o}_j + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [-\infty, \underline{o}_j + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o}_j - \ell_i] \cup [\overline{o}_j + \ell_j - \ell_i, \underline{o}_j + \ell_j] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4859 **Relation:** [bi,d,e,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.4860 Relation: [bi,d,e,o,si]

Complement relation.

$$\begin{cases}
] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\
] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\
] - \infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\
] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\
] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - \ell_j + \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\
] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1
\end{cases}$$

1.4861 Relation: [bi,d,e,oi]

Complement relation.

$$\begin{cases}
] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\
] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\
] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\
] - \infty, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\
] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\
] - \infty, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1
\end{cases}$$

1.4862 Relation: [bi,d,e,oi,s]

Complement relation.

$$\begin{cases}
] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\
] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\
] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\
] - \infty, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\
] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1
\end{cases}$$

1.4863 Relation: [bi,d,e,oi,s,si]

Complement relation.

$$\begin{cases}
] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\
] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\
] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j
\end{cases}$$

1.4864 Relation: [bi,d,e,oi,si]

Complement relation.

$$\begin{cases}
] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\
] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\
] - \infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\
] - \infty, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\
] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j
\end{cases}$$

1.4865 Relation: [bi,d,e,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}-1] \cup [\overline{o_j}+\ell_j-\ell_i, \underline{o_j}+\ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j}-1] \cup [\overline{o_j}+1, \underline{o_j}+\ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j}+\ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4866 Relation: [bi,d,e,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}-1] \cup [\overline{o_j}+\ell_j-\ell_i, \underline{o_j}+\ell_j] & \text{if } \ell_i < \ell_j-1 \\]-\infty, \underline{o_j}-1] \cup [\overline{o_j}+1, \underline{o_j}+\ell_j] & \text{if } \ell_i \geq \ell_j-1 \end{cases}$$

1.4867 Relation: [bi,d,e,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j}+\ell_j-\ell_i, \underline{o_j}+\ell_j] & \text{if } \ell_i < \ell_j-1 \\]-\infty, \underline{o_j}+\ell_j] & \text{if } \ell_i = \ell_j-1 \\]-\infty, \underline{o_j}-1] \cup [\overline{o_j}+1, \underline{o_j}+\ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.4868 Relation: [bi,d,f]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j}+\ell_j-\ell_i+1, \underline{o_j}+\ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j}+\ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.4869 Relation: [bi,d,f,fi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j}+\ell_j-\ell_i+1, \underline{o_j}+\ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j}+\ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j}+\ell_j-\ell_i-1] \cup [\overline{o_j}+\ell_j-\ell_i+1, \underline{o_j}+\ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4870 Relation: [bi,d,f,fi,m]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}-\ell_i-1] \cup [\overline{o_j}-\ell_i+1, \underline{o_j}] \cup [\overline{o_j}+\ell_j-\ell_i+1, \underline{o_j}+\ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j}-\ell_i-1] \cup [\overline{o_j}-\ell_i+1, \underline{o_j}+\ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j}-\ell_i-1] \cup [\overline{o_j}, \underline{o_j}+1] & \text{if } \ell_i \leq \ell_j+1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j}-\ell_i-1] \cup [\overline{o_j}-\ell_i+1, \underline{o_j}+\ell_j-\ell_i-1] \cup [\overline{o_j}+\ell_j-\ell_i+1, \underline{o_j}+\ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j}-\ell_i-1] \cup [\overline{o_j}+\ell_j-\ell_i+1, \underline{o_j}+1] & \text{if } \ell_i > \ell_j+1 \wedge \ell_j = 1 \end{cases}$$

1.4871 Relation: [bi,d,f,fi,m,mi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.4872 Relation: [bi,d,f,fi,m,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.4873 Relation: [bi,d,f,fi,m,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.4874 Relation: [bi,d,f,fi,m,mi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.4875 Relation: [bi,d,f,fi,m,mi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.4876 Relation: [bi,d,f,fi,m,mi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.4877 Relation: [bi,d,f,fi,m,mi,o,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.4878 Relation: [bi,d,f,fi,m,mi,o,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.4879 Relation: [bi,d,f,fi,m,mi,o,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_j + \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.4880 Relation: [bi,d,f,fi,m,mi,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{cases}$$

1.4881 Relation: [bi,d,f,fi,m,mi,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 2] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 2, \underline{o_j}] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4882 Relation: [bi,d,f,fi,m,mi,oi,s,si]

Complement relation.

$$\left. \begin{array}{l}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \\]-\infty, \underline{o_j} - \ell_i - 1] \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \end{array} \right\} \begin{array}{l} \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \text{if } \ell_i = \ell_j \\ \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array}$$

1.4883 Relation: [bi,d,f,fi,m,mi,oi,si]

Complement relation.

$$\left. \begin{array}{l}]-\infty, o_j - \ell_i - 1] \\]-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, o_j + \ell_j - \ell_i - 1] \\]-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, o_j] \\]-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, o_j - 1] \\]-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, o_j + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, o_j - 1] \end{array} \right\} \begin{array}{l} \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ \text{if } \ell_i \leq \ell_j \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array}$$

1.4884 Relation: [bi,d,f,fi,m,mi,s]

Complement relation.

$$\left. \begin{aligned} & [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] && \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ & [-\infty, \underline{o_j} - 2] && \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ & [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] && \text{if } \ell_i = \ell_j \\ & [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 2, \underline{o_j}] && \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ & [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] && \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{aligned} \right\}$$

1.4885 Relation: [bi,d,f,fi,m,mi,s,si]

Complement relation.

$$\left. \begin{array}{l}] -\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j - \ell_i + 1, \underline{o}_j - 1] \cup [\overline{o}_j + \ell_j - \ell_i + 1, \underline{o}_j + \ell_j - 1] \\] -\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j - \ell_i + 1, \underline{o}_j + \ell_j - 1] \\] -\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j - \ell_i + 1, \underline{o}_j + \ell_j - \ell_i - 1] \cup [\overline{o}_j + 1, \underline{o}_j + \ell_j - 1] \\] -\infty, \underline{o}_j - \ell_i - 1] \\] -\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j - \ell_i + 1, \underline{o}_j - 1] \\] -\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j - \ell_i + 1, \underline{o}_j + \ell_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j - \ell_i + 1, \underline{o}_j - 1] \cup [\overline{o}_j + 1, \underline{o}_j + \ell_j - 1] \end{array} \right\} \begin{array}{l} \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \text{if } \ell_i = \ell_j \\ \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array}$$

1.4886 Relation: [bi,d,f,fi,m,mi,si]

Complement relation.

$\left\{ \begin{array}{l}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \\] -\infty, \underline{o_j} - \ell_i - 1] \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \end{array} \right.$	$\begin{array}{l} \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \text{if } \ell_i = 1 \\ \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array}$
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1.4887 Relation: [bi,d,f,fi,m,o]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.4888 Relation: [bi,d,f,fi,m,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j, \underline{o}_j + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j, \underline{o}_j] \cup [\overline{o}_j + \ell_j, \underline{o}_j + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j - \ell_i + 1, \underline{o}_j + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j - \ell_i + 1, \underline{o}_j] \cup [\overline{o}_j + \ell_j, \underline{o}_j + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.4889 Relation: [bi,d,f,fi,m,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.4890 **Relation:** [bi,d,f,fi,m,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_i - 1, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.4891 Relation: [bi,d,f,fi,m,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j, \underline{o}_j + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j, \underline{o}_j] \cup [\overline{o}_j + \ell_j, \underline{o}_j + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j + \ell_i - 1, \underline{o}_j + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j - \ell_i + 1, \underline{o}_j - 1] \cup [\overline{o}_j + \ell_j, \underline{o}_j + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.4892 **Relation:** [bi,d,f,fi,m,o,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, o_j + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \end{cases}$$

Complement relation.

1.4894 Relation: [bi,d,f,fi,m,o,si]

Complement relation.

1.4895 **Relation:** [bi,d,f,fi,m,oi]

Complement relation.

1.4896 Relation: [bi,d,f,fi,m,oi,s]

Complement relation.

1.4897 Relation: [bi,d,f,fi,m,oi,s,si]

Complement relation.

1.4898 **Relation:** [bi,d,f,fi,m,oi,si]

Complement relation.

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1.4899 Relation: [bi,d,f,fi,m,s]

Complement relation.

$$\begin{cases} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.4900 **Relation:** [bi,d,f,fi,m,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.4901 Relation: [bi,d,f,fi,m,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.4902 Relation: [bi,d,f,fi,mi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j}] & \text{if } \ell_i = 1 \\ [-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.4903 **Relation:** [bi,d,f,fi,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j}] & \text{if } \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.4904 Relation: [bi,d,f,fi,mi,o,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.4905 Relation: [bi,d,f,fi,mi,o,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.4906 Relation: [bi,d,f,fi,mi,o,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.4907 Relation: [bi,d,f,fi,mi,o,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.4908 Relation: [bi,d,f,fi,mi,o,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.4909 Relation: [bi,d,f,fi,mi,o,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + 2\ell_j - 2\ell_i] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - \ell_j + \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.4910 Relation: [bi,d,f,fi,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 2\ell_i + 2] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - \ell_j + \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.4911 Relation: [bi,d,f,fi,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.4912 Relation: [bi,d,f,fi,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j}] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.4913 Relation: [bi,d,f,fi,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} + 2\ell_j - 2\ell_i] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.4914 Relation: [bi,d,f,fi,mi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i = \ell_j + 1 \\] - \infty, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.4915 Relation: [bi,d,f,fi,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.4916 Relation: [bi,d,f,fi,mi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.4917 Relation: [bi,d,f,fi,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - 2\ell_i + 2] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.4918 Relation: [bi,d,f,fi,o]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.4919 Relation: [bi,d,f,fi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - 2\ell_i + 2] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.4920 Relation: [bi,d,f,fi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.4921 Relation: [bi,d,f,fi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.4922 Relation: [bi,d,f,fi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 2\ell_i + 2] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.4923 Relation: [bi,d,f,fi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \end{array} \right.$$

1.4924 Relation: [bi,d,f,fi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - \ell_j + \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.4925 Relation: [bi,d,f,fi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - \ell_j + \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.4926 Relation: [bi,d,f,fi,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.4927 Relation: [bi,d,f,fi,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4928 Relation: [bi,d,f,fi,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} + 2\ell_j - 2\ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.4929 Relation: [bi,d,f,fi,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.4930 Relation: [bi,d,f,fi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4931 Relation: [bi,d,f,fi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.4932 Relation: [bi,d,f,fi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.4933 Relation: [bi,d,f,m]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.4934 Relation: [bi,d,f,m,mi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.4935 Relation: [bi,d,f,m,mi,o]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.4936 Relation: [bi,d,f,m,mi,o,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4937 Relation: [bi,d,f,m,mi,o,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.4938 Relation: [bi,d,f,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4939 Relation: [bi,d,f,m,mi,o,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4940 Relation: [bi,d,f,m,mi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.4941 Relation: [bi,d,f,m,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.4942 Relation: [bi,d,f,m,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.4943 Relation: [bi,d,f,m,mi,oi]

Complement relation.

$$] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}]$$

1.4944 Relation: [bi,d,f,m,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.4945 Relation: [bi,d,f,m,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i \neq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.4946 Relation: [bi,d,f,m,mi,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4947 Relation: [bi,d,f,m,mi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.4948 Relation: [bi,d,f,m,mi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4949 Relation: [bi,d,f,m,mi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4950 Relation: [bi,d,f,m,o]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.4951 Relation: [bi,d,f,m,o,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4952 Relation: [bi,d,f,m,o,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.4953 Relation: [bi,d,f,m,o,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - 2] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4954 Relation: [bi,d,f,m,o,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4955 Relation: [bi,d,f,m,o,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.4956 Relation: [bi,d,f,m,o,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4957 Relation: [bi,d,f,m,o,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4958 Relation: [bi,d,f,m,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_j > 1 \end{cases}$$

1.4959 **Relation:** [bi,d,f,m,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.4960 **Relation:** [bi,d,f,m,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.4961 Relation: [bi,d,f,m,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.4962 Relation: [bi,d,f,m,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.4963 **Relation:** [bi,d,f,m,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.4964 **Relation:** [bi,d,f,m,si]

Complement relation.

$$\begin{cases} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4965 Relation: [bi,d,f,mi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j}] & \text{if } \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.4966 Relation: [bi,d,f,mi,o]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j}] & \text{if } \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.4967 Relation: [bi,d,f,mi,o,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] & \text{if } \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4968 Relation: [bi,d,f,mi,o,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j}] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.4969 Relation: [bi,d,f,mi,o,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - 1] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.4970 Relation: [bi,d,f,mi,o,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4971 Relation: [bi,d,f,mi,o,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j}] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.4972 Relation: [bi,d,f,mi,o,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - 1] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.4973 Relation: [bi,d,f,mi,o,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j}] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4974 Relation: [bi,d,f,mi,oi]

Complement relation.

$$]-\infty, \underline{o_j}]$$

1.4975 Relation: [bi,d,f,mi,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.4976 Relation: [bi,d,f,mi,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - 1] & \text{if } \ell_i \neq \ell_j \end{cases}$$

1.4977 Relation: [bi,d,f,mi,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4978 Relation: [bi,d,f,mi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.4979 Relation: [bi,d,f,mi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - 1] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.4980 Relation: [bi,d,f,mi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j}] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4981 Relation: [bi,d,f,o]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.4982 Relation: [bi,d,f,o,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.4983 Relation: [bi,d,f,o,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.4984 Relation: [bi,d,f,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.4985 Relation: [bi,d,f,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.4986 Relation: [bi,d,f,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.4987 Relation: [bi,d,f,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.4988 Relation: [bi,d,f,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.4989 Relation: [bi,d,f,oi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_j > 1 \end{array} \right.$$

1.4990 Relation: [bi,d,f,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.4991 Relation: [bi,d,f,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \end{cases}$$

1.4992 Relation: [bi,d,f,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4993 Relation: [bi,d,f,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.4994 Relation: [bi,d,f,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4995 Relation: [bi,d,f,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4996 Relation: [bi,d,fi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.4997 Relation: [bi,d,fi,m]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 2, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.4998 Relation: [bi,d,fi,m,mi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 2, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.4999 Relation: [bi,d,fi,m,mi,o]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.5000 Relation: [bi,d,fi,m,mi,o,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.5001 Relation: [bi,d,fi,m,mi,o,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, o_j - 1] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = \ell_j + 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, o_j + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

Complement relation.

$$\left. \begin{array}{l} [-\infty, \underline{o}_j - \ell_i - 1] \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j - \ell_i, \underline{o}_j + \ell_j - 1] \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j - \ell_i + 1, \underline{o}_j - 1] \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j - \ell_i + 1, \underline{o}_j - 1] \cup [\overline{o}_j + 1, \underline{o}_j + \ell_j - 1] \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j + 1, \underline{o}_j + \ell_j - 1] \end{array} \right\} \begin{array}{l} \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ \text{if } \ell_i \leq \ell_j \wedge \ell_i \neq \ell_j - 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \end{array}$$

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.5013 **Relation:** [bi,d,fi,m,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.5014 **Relation:** [bi,d,fi,m,o]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.5015 Relation: [bi,d,fi,m,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j} + 1] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.5016 Relation: [bi,d,fi,m,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, o_j] \cup [\overline{o_j} + \ell_j, o_j + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.5017 **Relation:** [bi,d,fi,m,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.5028 Relation: [bi,d,fi,m,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_i - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.5029 Relation: [bi,d,fi,mi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.5030 Relation: [bi,d,fi,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - 2\ell_i + 2] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.5031 Relation: [bi,d,fi,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.5032 Relation: [bi,d,fi,mi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.5033 Relation: [bi,d,fi,mi,o,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.5034 Relation: [bi,d,fi,mi,o,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j + 1 \\]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.5035 Relation: [bi,d,fi,mi,o,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.5036 Relation: [bi,d,fi,mi,o,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \neq \ell_j - 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + 2\ell_j - 2\ell_i] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - \ell_i + 2, \underline{o_j} + 2\ell_j - 3] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.5037 Relation: [bi,d,fi,mi,o,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + \ell_j - 2\ell_i + 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.5038 Relation: [bi,d,fi,mi,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5039 Relation: [bi,d,fi,mi,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j}] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5040 Relation: [bi,d,fi,mi,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} + 2\ell_j - 2\ell_i] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.5041 Relation: [bi,d,fi,mi,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} + 2\ell_j - 2\ell_i] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.5042 Relation: [bi,d,fi,mi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5043 Relation: [bi,d,fi,mi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + 2\ell_j - 2\ell_i] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

Complement relation.

$$\left. \begin{array}{l}] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] \\] -\infty, \underline{o_j} + \ell_j] \\] -\infty, \underline{o_j} - 2\ell_i + 2] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] \end{array} \right\} \begin{array}{l} \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array}$$

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, o_j] \cup [\overline{o_j} + \ell_j, o_j + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.5049 Relation: [bi,d,fi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.5050 Relation: [bi,d,fi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.5051 Relation: [bi,d,fi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \neq \ell_j - 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \end{array} \right.$$

1.5052 Relation: [bi,d,fi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.5053 Relation: [bi,d,fi,oi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 2\ell_i + 2] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.5054 Relation: [bi,d,fi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.5055 Relation: [bi,d,fi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} + 2\ell_j - 2\ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.5056 Relation: [bi,d,fi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} + 2\ell_j - 2\ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.5057 Relation: [bi,d,fi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.5058 Relation: [bi,d,fi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.5059 Relation: [bi,d,fi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.5060 Relation: [bi,d,m]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \end{cases}$$

1.5061 Relation: [bi,d,m,mi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \end{cases}$$

1.5062 Relation: [bi,d,m,mi,o]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5063 Relation: [bi,d,m,mi,o,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5064 Relation: [bi,d,m,mi,o,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5065 Relation: [bi,d,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5066 Relation: [bi,d,m,mi,o,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5067 Relation: [bi,d,m,mi,o,s]

Complement relation.

$$] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1]$$

1.5068 Relation: [bi,d,m,mi,o,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.5069 Relation: [bi,d,m,mi,o,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.5070 Relation: [bi,d,m,mi,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.5071 Relation: [bi,d,m,mi,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.5072 **Relation:** [bi,d,m,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.5073 **Relation:** [bi,d,m,mi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j - \ell_i + 1, \underline{o}_j] \cup [\overline{o}_j + \ell_j - \ell_i, \underline{o}_j + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j - \ell_i + 1, \underline{o}_j + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j - \ell_i + 1, \underline{o}_j - 1] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.5074 Relation: [bi,d,m,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.5075 **Relation:** [bi,d,m,mi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.5076 **Relation:** [bi,d,m,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5077 Relation: [bi,d,m,o]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.5078 Relation: [bi,d,m,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.5079 Relation: [bi,d,m,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5080 Relation: [bi,d,m,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 2] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.5081 Relation: [bi,d,m,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 2] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 2] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.5082 Relation: [bi,d,m,o,s]

Complement relation.

$$]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j]$$

1.5083 Relation: [bi,d,m,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.5084 Relation: [bi,d,m,o,si]

Complement relation.

$$\left. \begin{aligned} &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] && \text{if } \ell_i < \ell_j - 1 \\ &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] && \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] && \text{if } \ell_i > \ell_j \end{aligned} \right\}$$

1.5085 Relation: [bi,d,m,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{\sigma_j} - \ell_i - 1] \cup [\underline{\sigma_j}, \underline{\sigma_j}] \cup [\underline{\sigma_j} + \ell_j - 1, \underline{\sigma_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{\sigma_j} - \ell_i - 1] \cup [\underline{\sigma_j} - \ell_i + 1, \underline{\sigma_j}] \cup [\underline{\sigma_j} + \ell_j - \ell_i, \underline{\sigma_j} + \ell_j - \ell_i] \cup [\underline{\sigma_j} + \ell_j, \underline{\sigma_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{\sigma_j} - \ell_i - 1] \cup [\underline{\sigma_j} - \ell_i + 1, \underline{\sigma_j} + 1] \cup [\underline{\sigma_j} + \ell_j, \underline{\sigma_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{\sigma_j} - \ell_i - 1] \cup [\underline{\sigma_j} - \ell_i + 1, \underline{\sigma_j}] \cup [\underline{\sigma_j} + \ell_j, \underline{\sigma_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [-\infty, \underline{\sigma_j} - \ell_i - 1] \cup [\underline{\sigma_j} - \ell_i + 1, \underline{\sigma_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.5086 Relation: [bi,d,m,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.5087 Relation: [bi,d,m,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.5088 **Relation:** [bi,d,m,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.5089 **Relation:** [bi,d,m,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 2] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.5090 Relation: [bi,d,m,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{\sigma_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{\sigma_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{\sigma_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{\sigma_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{\sigma_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{\sigma_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.5091 Relation: [bi,d,m,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{\sigma_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{\sigma_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{\sigma_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{\sigma_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{\sigma_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.5092 Relation: [bi,d,mi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j}] \cup [\overline{\sigma_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \end{array} \right.$$

1.5093 Relation: [bi,d,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j}] \cup [\overline{\sigma_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{\sigma_j}, \underline{o_j}] \cup [\overline{\sigma_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{\sigma_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{\sigma_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.5094 Relation: [bi,d,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j}] \cup [\overline{\sigma_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{\sigma_j}, \underline{o_j}] \cup [\overline{\sigma_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{\sigma_j}, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{\sigma_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.5095 Relation: [bi,d,mi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j}] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{\sigma_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{\sigma_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5096 Relation: [bi,d,mi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5097 Relation: [bi,d,mi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5098 Relation: [bi,d,mi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j}] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_j > 1 \end{array} \right.$$

1.5099 Relation: [bi,d,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5100 Relation: [bi,d,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5101 Relation: [bi,d,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j - 1 \\]-\infty, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.5102 Relation: [bi,d,mi,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.5103 Relation: [bi,d,mi,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j}] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5104 Relation: [bi,d,mi,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5105 Relation: [bi,d,mi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.5106 Relation: [bi,d,mi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \end{cases}$$

1.5107 Relation: [bi,d,mi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.5113 Relation: [bi,d,o,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_j > 1 \end{cases}$$

1.5114 Relation: [bi,d,o,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.5115 Relation: [bi,d,o,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.5116 Relation: [bi,d,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.5117 Relation: [bi,d,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.5118 Relation: [bi,d,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5119 Relation: [bi,d,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.5120 Relation: [bi,d,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.5121 Relation: [bi,d,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.5122 Relation: [bi,d,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.5123 Relation: [bi,di]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.5124 Relation: [bi,di,e]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.5125 Relation: [bi,di,e,f]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.5126 Relation: [bi,di,e,f,fi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5127 Relation: [bi,di,e,f,fi,m]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.5128 Relation: [bi,di,e,f,fi,m,mi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.5129 Relation: [bi,di,e,f,fi,m,mi,o]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 2] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - 2] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5130 Relation: [bi,di,e,f,fi,m,mi,o,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5131 Relation: [bi,di,e,f,fi,m,mi,o,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5132 Relation: [bi,di,e,f,fi,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i \geq \ell_j - 1 \end{cases}$$

1.5133 Relation: [bi,di,e,f,fi,m,mi,o,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.5134 Relation: [bi,di,e,f,fi,m,mi,o,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5135 Relation: [bi,di,e,f,fi,m,mi,o,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.5136 Relation: [bi,di,e,f,fi,m,mi,o,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.5137 Relation: [bi,di,e,f,fi,m,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 2] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5138 Relation: [bi,di,e,f,fi,m,mi,oi,s]

Complement relation.

$$\left. \begin{array}{l} [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j + 1, \underline{o}_j + \ell_j - \ell_i - 1] \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j - \ell_i + 1, \underline{o}_j - 1] \cup [\overline{o}_j + 1, \underline{o}_j + \ell_j - \ell_i - 1] \\ [-\infty, \underline{o}_j - \ell_i - 1] \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j - \ell_i + 1, \underline{o}_j - 1] \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j, \underline{o}_j] \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j - \ell_i + 1, \underline{o}_j + \ell_j - \ell_i - 1] \cup [\overline{o}_j, \underline{o}_j] \end{array} \right\} \begin{array}{l} \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array}$$

1.5139 **Relation:** [bi,di,e,f,fi,m,mi,oi,s,si]

Complement relation.

$$\left. \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right\}$$

1.5140 **Relation:** [bi,di,e,f,fi,m,mi,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_j > 1 \end{cases}$$

1.5141 Relation: [bi,di,e,f,fi,m,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5142 Relation: [bi,di,e,fi,m,mi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 2] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 2, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.5143 Relation: [bi,di,e,fi,m,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5144 Relation: [bi,di,e,fi,m,o]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.5145 Relation: [bi,di,e,fi,m,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5146 Relation: [bi,di,e,fi,m,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5147 Relation: [bi,di,e,fi,m,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \end{array} \right.$$

1.5148 Relation: [bi,di,e,f,fi,m,o,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, o_j + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.5149 Relation: [bi,di,e,f,fi,m,o,s]

Complement relation.

$$\left. \begin{aligned} &] - \infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] && \text{if } \ell_i < \ell_j - 1 \\ &] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] && \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ &] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] && \text{if } \ell_i > \ell_j \end{aligned} \right\}$$

1.5150 Relation: [bi,di,e,f,fi,m,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.5151 Relation: [bi,di,e,f,fi,m,o,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.5152 Relation: [bi,di,e,f,fi,m,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5153 Relation: [bi,di,e,f,fi,m,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_j - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_j - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_j - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_j - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_j - 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_j - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5154 Relation: [bi,di,e,f,fi,m,oi,s,si]

Complement relation.

$$\left. \begin{array}{l} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] \end{array} \right\} \begin{array}{l} \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array}$$

1.5155 Relation: [bi,di,e,f,fi,m,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, o_j + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, o_j + \ell_j] & \text{if } \ell_j > 1 \end{cases}$$

1.5156 Relation: [bi,di,e,f,fi,m,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5157 Relation: [bi,di,e,f,fi,m,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - 2] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{e_j} - 2] \cup [\overline{o_j} + \underline{e_j}, \underline{o_j} + \underline{e_j}] & \text{if } \ell_i < \underline{e_j} - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{e_j} - \ell_i - 1] \cup [\overline{o_j} + \underline{e_j} - \ell_i + 1, \underline{o_j} + \underline{e_j}] & \text{if } \ell_i < \underline{e_j} - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 2, \underline{o_j} + \underline{e_j}] & \text{if } \ell_i = \underline{e_j} - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \underline{e_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{e_j}] & \text{if } \ell_i \geq \underline{e_j} \wedge \ell_i > 1 \wedge \underline{e_j} > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \underline{e_j}, \underline{o_j} + \underline{e_j}] & \text{if } \ell_i \geq \underline{e_j} - 1 \wedge \min(\ell_i, \underline{e_j}) = 1 \end{array} \right.$$

1.5158 Relation: [bi,di,e,f,fi,m,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5159 Relation: [bi,di,e,f,fi,mi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.5160 Relation: [bi,di,e,f,fi,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.5161 Relation: [bi,di,e,f,fi,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.5162 Relation: [bi,di,e,f,fi,mi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.5163 Relation: [bi,di,e,f,fi,mi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i] & \text{if } \ell_i \geq \ell_j - 1 \end{array} \right.$$

1.5164 Relation: [bi,di,e,f,fi,mi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.5165 Relation: [bi,di,e,f,fi,mi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.5166 Relation: [bi,di,e,fi,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.5167 Relation: [bi,di,e,fi,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.5168 Relation: [bi,di,e,fi,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.5169 Relation: [bi,di,e,fi,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.5170 Relation: [bi,di,e,fi,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.5171 Relation: [bi,di,e,fi,mi,oi,si]

Complement relation.

$$] - \infty, \underline{o_j} + \ell_j - \ell_i - 1]$$

1.5172 Relation: [bi,di,e,fi,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] -\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\] -\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\] -\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.5173 Relation: [bi,di,e,fi,mi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] -\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 2, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] -\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - \ell_i] & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.5174 Relation: [bi,di,e,fi,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \min(\ell_i, \ell_j) = 1 \\] -\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] -\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5175 Relation: [bi,di,e,fi,o]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] -\infty, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.5176 Relation: [bi,di,e,fi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] -\infty, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.5177 Relation: [bi,di,e,fi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5178 Relation: [bi,di,e,f,fi,o,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \end{cases}$$

1.5179 Relation: [bi,di,e,f,fi,o,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.5180 Relation: [bi,di,e,f,fi,o,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5181 Relation: [bi,di,e,f,fi,o,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 2, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.5182 Relation: [bi,di,e,f,fi,o,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.5183 Relation: [bi,di,e,f,fi,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.5184 Relation: [bi,di,e,f,fi,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.5185 Relation: [bi,di,e,f,fi,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5186 Relation: [bi,di,e,f,fi,oi,si]

Complement relation.

$$] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j]$$

1.5187 Relation: [bi,di,e,f,fi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5188 Relation: [bi,di,e,f,fi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5189 Relation: [bi,di,e,f,fi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5190 Relation: [bi,di,e,f,m]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 2] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.5191 Relation: [bi,di,e,f,m,mi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.5192 Relation: [bi,di,e,f,m,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 2\ell_j - 2\ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.5193 Relation: [bi,di,e,f,m,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.5194 Relation: [bi,di,e,f,m,mi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.5195 Relation: [bi,di,e,f,m,mi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.5196 Relation: [bi,di,e,f,m,mi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.5218 Relation: [bi,di,e,f,m,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.5219 Relation: [bi,di,e,f,m,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, o_j - 2] \cup [\overline{o_j} + 1, o_j + \ell_j - 2] \cup [\overline{o_j} + \ell_j, o_j + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \\]-\infty, o_j - 2] \cup [\overline{o_j} + \ell_j, o_j + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, o_j + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.5220 Relation: [bi,di,e,f,m,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - 2] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 2, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - 2] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.5221 Relation: [bi,di,e,f,m,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.5222 Relation: [bi,di,e,f,mi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j}] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i = 1 \end{array} \right.$$

1.5223 Relation: [bi,di,e,f,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 2\ell_j - 2\ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j}] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i = 1 \end{array} \right.$$

1.5224 Relation: [bi,di,e,f,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j}] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i = 1 \end{array} \right.$$

1.5225 **Relation:** [bi,di,e,f,mi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i} - 1] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \underline{\ell_i}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \underline{\ell_i} + 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + \underline{\ell_i} - 2] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.5226 **Relation:** [bi,di,e,f,mi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.5227 Relation: [bi,di,e,f,mi,o,oi,si]

Complement relation.

$$\left. \begin{array}{l} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \\ [-\infty, \underline{o_j} - \ell_i] \\ [-\infty, \underline{o_j} + \ell_j - 2] \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \\ [-\infty, \underline{o_j} - \ell_i + 1] \end{array} \right\} \begin{array}{l} \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array}$$

1.5228 Relation: [bi,di,e,f,mi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] \cup [\overline{\sigma_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{\sigma_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{\sigma_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{\sigma_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{\sigma_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{\sigma_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{\sigma_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{\sigma_j} + 2\ell_j - 2\ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + \ell_i - 2] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.5229 Relation: [bi,di,e,f,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] \cup [\overline{\sigma_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{\sigma_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{\sigma_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{\sigma_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{\sigma_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{\sigma_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.5230 Relation: [bi,di,e,f,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{\sigma_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{\sigma_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{\sigma_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{\sigma_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{\sigma_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.5231 Relation: [bi,di,e,f,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \neq \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{\sigma_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j}] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \end{array} \right.$$

1.5232 Relation: [bi,di,e,f,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] \cup [\overline{\sigma_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j}] & \text{if } \ell_i = \ell_j + 1 \\]-\infty, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{\sigma_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.5233 Relation: [bi,di,e,f,mi,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.5234 Relation: [bi,di,e,f,mi,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5235 Relation: [bi,di,e,f,mi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \\]-\infty, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.5236 Relation: [bi,di,e,f,mi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.5237 Relation: [bi,di,e,f,mi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.5248 Relation: [bi,di,e,f,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}-1] \cup [\overline{o_j}+1, \underline{o_j}+\ell_j-\ell_i-1] \cup [\overline{o_j}+\ell_j, \underline{o_j}+\ell_j] & \text{if } \ell_i < \ell_j-1 \\]-\infty, \underline{o_j}+\ell_j-\ell_i] \cup [\overline{o_j}+\ell_j, \underline{o_j}+\ell_j] & \text{if } \ell_i > \ell_j+1 \\]-\infty, \underline{o_j}-1] \cup [\overline{o_j}+\ell_j, \underline{o_j}+\ell_j] & \text{if } \ell_i \geq \ell_j-1 \wedge \ell_i \leq \ell_j+1 \end{cases}$$

1.5249 Relation: [bi,di,e,f,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}+\ell_j-\ell_i-1] \cup [\overline{o_j}+\ell_j, \underline{o_j}+\ell_j] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j}+\ell_j-\ell_i] \cup [\overline{o_j}+\ell_j, \underline{o_j}+\ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5250 Relation: [bi,di,e,f,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}-1] \cup [\overline{o_j}+1, \underline{o_j}+\ell_j-\ell_i-1] \cup [\overline{o_j}+\ell_j-\ell_i+1, \underline{o_j}+\ell_j] & \text{if } \ell_i < \ell_j-1 \\]-\infty, \underline{o_j}+\ell_j] & \text{if } \ell_i = \ell_j+1 \\]-\infty, \underline{o_j}-1] \cup [\overline{o_j}+\ell_j-\ell_i+1, \underline{o_j}+\ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j-1 \\]-\infty, \underline{o_j}+\ell_j-\ell_i] \cup [\overline{o_j}, \underline{o_j}+\ell_j] & \text{if } \ell_i > \ell_j+1 \end{cases}$$

1.5251 Relation: [bi,di,e,f,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}-1] \cup [\overline{o_j}+1, \underline{o_j}+\ell_j-\ell_i-1] \cup [\overline{o_j}+\ell_j-\ell_i+1, \underline{o_j}+\ell_j] & \text{if } \ell_i < \ell_j-1 \\]-\infty, \underline{o_j}-1] \cup [\overline{o_j}+\ell_j-\ell_i+1, \underline{o_j}+\ell_j] & \text{if } \ell_i = \ell_j-1 \\]-\infty, \underline{o_j}+\ell_j-\ell_i] \cup [\overline{o_j}+1, \underline{o_j}+\ell_j] & \text{if } \ell_i > \ell_j+1 \\]-\infty, \underline{o_j}-1] \cup [\overline{o_j}+1, \underline{o_j}+\ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j+1 \end{cases}$$

1.5252 Relation: [bi,di,e,f,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}+\ell_j-\ell_i-1] \cup [\overline{o_j}+\ell_j-\ell_i+1, \underline{o_j}+\ell_j] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j}+\ell_j-\ell_i] \cup [\overline{o_j}+1, \underline{o_j}+\ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5253 Relation: [bi,di,e,f,i]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}+\ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j}-1] \cup [\overline{o_j}+1, \underline{o_j}+\ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j}+\ell_j-\ell_i-1] \cup [\overline{o_j}, \underline{o_j}+\ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5254 Relation: [bi,di,e,fi,m]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5255 Relation: [bi,di,e,fi,m,mi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5256 Relation: [bi,di,e,fi,m,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \neq \ell_j \end{array} \right.$$

1.5257 Relation: [bi,di,e,fi,m,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.5258 Relation: [bi,di,e,fi,m,mi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.5259 Relation: [bi,di,e,fi,m,mi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.5260 Relation: [bi,di,e,fi,m,mi,o,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.5261 Relation: [bi,di,e,fi,m,mi,o,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5262 Relation: [bi,di,e,fi,m,mi,o,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_j > 1 \end{cases}$$

1.5263 Relation: [bi,di,e,fi,m,mi,o,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.5264 Relation: [bi,di,e,fi,m,mi,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.5265 Relation: [bi,di,e,fi,m,mi,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.5266 Relation: [bi,di,e,fi,m,mi,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.5267 Relation: [bi,di,e,fi,m,mi,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.5268 Relation: [bi,di,e,fi,m,mi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.5269 Relation: [bi,di,e,fi,m,mi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.5270 Relation: [bi,di,e,fi,m,mi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.5271 Relation: [bi,di,e,fi,m,o]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \end{cases}$$

1.5272 Relation: [bi,di,e,fi,m,o,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.5273 Relation: [bi,di,e,fi,m,o,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.5274 Relation: [bi,di,e,fi,m,o,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.5275 Relation: [bi,di,e,fi,m,o,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.5276 Relation: [bi,di,e,fi,m,o,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5277 Relation: [bi,di,e,fi,m,o,s,si]

Complement relation.

$$] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j]$$

1.5278 Relation: [bi,di,e,fi,m,o,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.5285 Relation: [bi,di,e,fi,m,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.5286 Relation: [bi,di,e,fi,mi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5287 Relation: [bi,di,e,fi,mi,o]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \neq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.5288 Relation: [bi,di,e,fi,mi,o,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5289 Relation: [bi,di,e,fi,mi,o,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5290 Relation: [bi,di,e,fi,mi,o,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.5291 Relation: [bi,di,e,fi,mi,o,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.5292 Relation: [bi,di,e,fi,mi,o,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5293 Relation: [bi,di,e,fi,mi,o,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] & \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_j > 1 \end{cases}$$

1.5294 Relation: [bi,di,e,fi,mi,o,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] & \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.5295 Relation: [bi,di,e,fi,mi,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - 1] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5296 Relation: [bi,di,e,fi,mi,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - 1] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5297 Relation: [bi,di,e,fi,mi,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.5298 Relation: [bi,di,e,fi,mi,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.5299 Relation: [bi,di,e,fi,mi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5300 Relation: [bi,di,e,fi,mi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.5301 Relation: [bi,di,e,fi,mi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.5302 Relation: [bi,di,e,fi,o]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.5303 Relation: [bi,di,e,fi,o,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.5304 Relation: [bi,di,e,fi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5305 Relation: [bi,di,e,fi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.5306 Relation: [bi,di,e,fi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.5307 Relation: [bi,di,e,fi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.5308 Relation: [bi,di,e,fi,o,s,si]

Complement relation.

$$]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j]$$

1.5309 Relation: [bi,di,e,fi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.5310 Relation: [bi,di,e,fi,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.5311 Relation: [bi,di,e,fi,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.5312 Relation: [bi,di,e,fi,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.5313 Relation: [bi,di,e,fi,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.5314 Relation: [bi,di,e,fi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5315 Relation: [bi,di,e,fi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5316 Relation: [bi,di,e,fi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.5317 Relation: [bi,di,e,m]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 2] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.5318 Relation: [bi,di,e,m,mi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.5319 Relation: [bi,di,e,m,mi,o]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 2\ell_j - 2\ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.5320 Relation: [bi,di,e,m,mi,o,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i = \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.5321 Relation: [bi,di,e,m,mi,o,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i = \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.5322 Relation: [bi,di,e,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5323 Relation: [bi,di,e,m,mi,o,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5324 Relation: [bi,di,e,m,mi,o,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.5325 Relation: [bi,di,e,m,mi,o,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.5326 Relation: [bi,di,e,m,mi,o,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.5327 Relation: [bi,di,e,m,mi,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_j + \ell_i - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.5328 Relation: [bi,di,e,m,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_j + \ell_i - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.5329 Relation: [bi,di,e,m,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.5330 Relation: [bi,di,e,m,mi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \end{array} \right.$$

1.5331 Relation: [bi,di,e,m,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - 2\ell_i + 3, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.5332 Relation: [bi,di,e,m,mi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - 2\ell_i + 3, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.5333 Relation: [bi,di,e,m,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.5334 **Relation:** [bi,di,e,m,o]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 2\ell_j - 2\ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.5335 **Relation:** [bi,di,e,m,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\underline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.5336 Relation: [bi,di,e,m,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - 2\ell_i + 3, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.5337 **Relation:** [bi,di,e,m,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - 2] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.5344 Relation: [bi,di,e,m,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.5345 Relation: [bi,di,e,m,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.5346 Relation: [bi,di,e,m,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 2] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.5347 Relation: [bi,di,e,m,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.5348 Relation: [bi,di,e,m,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.5349 Relation: [bi,di,e,mi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_j + \ell_i - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.5350 Relation: [bi,di,e,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_j + \ell_i - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 2\ell_j - 2\ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.5351 Relation: [bi,di,e,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.5352 Relation: [bi,di,e,mi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j}] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.5353 Relation: [bi,di,e,mi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.5354 Relation: [bi,di,e,mi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.5355 Relation: [bi,di,e,mi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_j + \ell_i - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.5356 Relation: [bi,di,e,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.5357 Relation: [bi,di,e,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.5358 Relation: [bi,di,e,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_j + \ell_i - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.5359 Relation: [bi,di,e,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_j + \ell_i - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.5360 Relation: [bi,di,e,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - 1] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.5361 Relation: [bi,di,e,mi,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \end{cases}$$

1.5362 Relation: [bi,di,e,mi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_j + \ell_i - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.5363 Relation: [bi,di,e,mi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.5364 Relation: [bi,di,e,mi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.5365 Relation: [bi,di,e,o]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.5366 Relation: [bi,di,e,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \underline{\ell_i} + 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.5367 Relation: [bi,di,e,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} -\infty, \underline{o_j} - \ell_i \} \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ -\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ -\infty, \underline{o_j} - \ell_i \} \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ -\infty, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ -\infty, \underline{o_j} - \ell_i \} \cup [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ -\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ -\infty, \underline{o_j} - \ell_i \} \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.5368 **Relation:** [bi,di,e,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} < \underline{\ell_j} \wedge \underline{\ell_i} > 1 \\ [-\infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} = \underline{\ell_j} \wedge \underline{\ell_i} > 1 \\ [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} \leq \underline{\ell_j} + 1 \wedge \min(\underline{\ell_i}, \underline{\ell_j}) = 1 \\ [-\infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} > \underline{\ell_j} \wedge \underline{\ell_j} > 1 \\ [-\infty, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} > \underline{\ell_j} + 1 \wedge \underline{\ell_j} = 1 \end{array} \right.$$

1.5369 Relation: [bi,di,e,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.5370 Relation: [bi,di,e,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} + 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, o_j + \ell_j - \ell_i] \cup [\overline{o_j}, o_j + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.5371 **Relation:** [bi,di,e,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.5372 Relation: [bi,di,e,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.5373 Relation: [bi,di,e,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.5374 Relation: [bi,di,e,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o}_j - 1] \cup [\overline{o}_j + 1, \underline{o}_j + \ell_j - \ell_i] \cup [\overline{o}_j + \ell_j, \underline{o}_j + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o}_j - 1] \cup [\overline{o}_j + 1, \underline{o}_j + \ell_j] & \text{if } \ell_i = 1 \\ [-\infty, \underline{o}_j + 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o}_j - \ell_i + 1] \cup [\overline{o}_j, \underline{o}_j + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o}_j + \ell_j - \ell_i] \cup [\overline{o}_j, \underline{o}_j] \cup [\overline{o}_j + \ell_j, \underline{o}_j + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o}_j - \ell_j + \ell_i - 1] \cup [\overline{o}_j + \ell_j, \underline{o}_j + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.5375 **Relation:** [bi,di,e,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.5376 Relation: [bi,di,e,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.5377 Relation: [bi,di,e,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.5378 Relation: [bi,di,e,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.5379 Relation: [bi,di,e,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5380 Relation: [bi,di,f]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.5381 Relation: [bi,di,f,fi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5382 Relation: [bi,di,f,fi,m]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.5383 Relation: [bi,di,f,fi,m,mi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.5384 Relation: [bi,di,f,fi,m,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.5385 Relation: [bi,di,f,fi,m,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \geq \ell_j - 1 \end{array} \right.$$

1.5386 Relation: [bi,di,f,fi,m,mi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.5387 Relation: [bi,di,f,fi,m,mi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \end{array} \right.$$

1.5388 Relation: [bi,di,f,fi,m,mi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.5389 **Relation:** [bi,di,f,fi,m,mi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.5390 Relation: [bi,di,f,fi,m,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.5391 **Relation:** [bi,di,f,fi,m,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5392 **Relation:** [bi,di,f,fi,m,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5393 **Relation:** [bi,di,f,fi,m,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_j + \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, o_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5399 Relation: [bi,di,f,fi,m,o]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.5400 Relation: [bi,di,f,fi,m,o,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \end{cases}$$

1.5401 Relation: [bi,di,f,fi,m,o,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.5402 Relation: [bi,di,f,fi,m,o,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \end{cases}$$

1.5403 Relation: [bi,di,f,fi,m,o,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5404 Relation: [bi,di,f,fi,m,o,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

Complement relation.

Complement relation.

Complement relation.

Complement relation.

Complement relation.

Complement relation.

932

1.5411 Relation: [bi,di,f,fi,m,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - 2] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 2, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 2\ell_j - 2, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.5412 Relation: [bi,di,f,fi,m,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.5413 Relation: [bi,di,f,fi,m,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5414 **Relation:** [bi,di,f,fi,mi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.5415 **Relation:** [bi,di,f,fi,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.5416 Relation: [bi,di,f,fi,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \end{array} \right.$$

1.5417 Relation: [bi,di,f,fi,mi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_j + \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.5418 Relation: [bi,di,f,fi,mi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_j + \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.5419 Relation: [bi,di,f,fi,mi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.5420 Relation: [bi,di,f,fi,mi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_j + \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.5421 Relation: [bi,di,f,fi,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_j + \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 2\ell_j - 2\ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5422 Relation: [bi,di,f,fi,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.5423 Relation: [bi,di,f,fi,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j}] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.5424 Relation: [bi,di,f,fi,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_j + \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.5425 Relation: [bi,di,f,fi,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_j + \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.5426 Relation: [bi,di,f,fi,mi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \end{array} \right.$$

1.5427 Relation: [bi,di,f,fi,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.5428 Relation: [bi,di,f,fi,mi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.5429 Relation: [bi,di,f,fi,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.5430 Relation: [bi,di,f,fi,o]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.5431 Relation: [bi,di,f,fi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.5432 Relation: [bi,di,f,fi,o,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.5433 Relation: [bi,di,f,fi,o,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \end{cases}$$

1.5434 Relation: [bi,di,f,fi,o,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.5435 Relation: [bi,di,f,fi,o,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.5436 Relation: [bi,di,f,fi,o,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 2\ell_j - 2\ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5437 Relation: [bi,di,f,fi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.5438 Relation: [bi,di,f,fi,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5439 Relation: [bi,di,f,fi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_j + \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5440 Relation: [bi,di,f,fi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_j + \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.5441 Relation: [bi,di,f,fi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \end{array} \right.$$

1.5442 Relation: [bi,di,f,fi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.5443 **Relation:** [bi,di,f,fi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.5444 Relation: [bi,di,f,fi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.5445 Relation: [bi,di,f,m]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.5446 **Relation:** [bi,di,f,m,mi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.5447 **Relation:** [bi,di,f,m,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.5448 Relation: [bi,di,f,m,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j, \underline{o}_j + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j - 1, \underline{o}_j] & \text{if } \ell_i = \ell_j + 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j, \underline{o}_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j - \ell_i, \underline{o}_j + \ell_j - \ell_i] \cup [\overline{o}_j, \underline{o}_j] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.5449 Relation: [bi,di,f,m,mi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.5450 Relation: [bi,di,f,m,mi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.5451 Relation: [bi,di,f,m,mi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.5452 Relation: [bi,di,f,m,mi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.5453 Relation: [bi,di,f,m,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - 2\ell_i + 3, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.5454 Relation: [bi,di,f,m,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.5455 Relation: [bi,di,f,m,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.5456 Relation: [bi,di,f,m,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.5457 Relation: [bi,di,f,m,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \neq \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.5458 Relation: [bi,di,f,m,mi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \geq \ell_j \end{array} \right.$$

Complement relation.

Complement relation.

Complement relation.

Complement relation.

Complement relation.

944

1.5480 **Relation:** [bi,di,f,mi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j - 1 \\ [-\infty, \underline{o_j}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.5481 **Relation:** [bi,di,f,mi,o,oi,s,si]

Complement relation.

$$\left. \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i \neq \ell_j + 1 \wedge \ell_j = 1 \end{array} \right\}$$

1.5482 **Relation:** [bi,di,f,mi,o,oi,si]

Complement relation.

$$\left. \begin{array}{l} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \\ [-\infty, \underline{o_j} + \ell_j - 2] \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \\ [-\infty, \underline{o_j} - \ell_i + 1] \end{array} \right\} \begin{array}{l} \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array}$$

1.5483 Relation: [bi,di,f,mi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_j + 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.5484 Relation: [bi,di,f,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 2\ell_j - 2\ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i \neq \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.5485 Relation: [bi,di,f,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.5486 Relation: [bi,di,f,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j}] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.5487 Relation: [bi,di,f,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - 1] & \text{if } \ell_i = \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.5488 Relation: [bi,di,f,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \neq \ell_j + 1 \\]-\infty, \underline{o_j} - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \end{array} \right.$$

1.5489 Relation: [bi,di,f,mi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.5490 Relation: [bi,di,f,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_j + 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.5491 Relation: [bi,di,f,mi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.5492 Relation: [bi,di,f,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.5493 Relation: [bi,di,f,o]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.5494 Relation: [bi,di,f,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.5500 Relation: [bi,di,f,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.5501 Relation: [bi,di,f,oi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.5502 Relation: [bi,di,f,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\]-\infty, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.5503 Relation: [bi,di,f,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \end{array} \right.$$

1.5504 Relation: [bi,di,f,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.5505 Relation: [bi,di,f,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.5506 Relation: [bi,di,f,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5507 Relation: [bi,di,f,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5508 Relation: [bi,di,fi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5509 Relation: [bi,di,fi,m]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.5510 Relation: [bi,di,fi,m,mi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.5511 Relation: [bi,di,fi,m,mi,o]

Complement relation.

$$]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1]$$

1.5512 Relation: [bi,di,fi,m,mi,o,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.5513 Relation: [bi,di,fi,m,mi,o,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.5514 Relation: [bi,di,fi,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5515 Relation: [bi,di,fi,m,mi,o,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5516 Relation: [bi,di,fi,m,mi,o,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.5517 Relation: [bi,di,fi,m,mi,o,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \neq \ell_j \wedge \ell_j > 1 \end{cases}$$

1.5518 Relation: [bi,di,fi,m,mi,o,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.5525 Relation: [bi,di,fi,m,mi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.5526 Relation: [bi,di,fi,m,o]

Complement relation.

$$] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j]$$

1.5527 Relation: [bi,di,fi,m,o,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.5528 Relation: [bi,di,fi,m,o,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.5529 Relation: [bi,di,fi,m,o,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 2] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.5530 Relation: [bi,di,fi,m,o,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5531 Relation: [bi,di,fi,m,o,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.5532 Relation: [bi,di,fi,m,o,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \end{cases}$$

1.5533 Relation: [bi,di,fi,m,o,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5534 Relation: [bi,di,fi,m,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.5535 Relation: [bi,di,fi,m,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.5536 Relation: [bi,di,fi,m,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.5537 Relation: [bi,di,fi,m,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5538 Relation: [bi,di,fi,m,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 2] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5539 Relation: [bi,di,fi,m,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.5540 Relation: [bi,di,fi,m,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5541 Relation: [bi,di,fi,mi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.5542 Relation: [bi,di,fi,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > 1 \end{array} \right.$$

1.5543 Relation: [bi,di,fi,mi,o,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.5544 Relation: [bi,di,fi,mi,o,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.5545 Relation: [bi,di,fi,mi,o,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5546 Relation: [bi,di,fi,mi,o,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5547 Relation: [bi,di,fi,mi,o,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.5548 Relation: [bi,di,fi,mi,o,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \neq \ell_j \wedge \ell_j > 1 \end{cases}$$

1.5549 Relation: [bi,di,fi,mi,o,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.5550 Relation: [bi,di,fi,mi,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5551 Relation: [bi,di,fi,mi,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j}] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5552 Relation: [bi,di,fi,mi,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j}] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5553 Relation: [bi,di,fi,mi,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5554 Relation: [bi,di,fi,mi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5555 Relation: [bi,di,fi,mi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.5556 Relation: [bi,di,fi,mi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.5557 Relation: [bi,di,fi,o]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > 1 \end{cases}$$

1.5558 Relation: [bi,di,fi,o,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.5559 Relation: [bi,di,fi,o,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.5560 Relation: [bi,di,fi,o,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.5561 Relation: [bi,di,fi,o,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5562 Relation: [bi,di,fi,o,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{\sigma_j} + 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{\sigma_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.5563 Relation: [bi,di,fi,o,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{\sigma_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{\sigma_j} + 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i \neq \ell_j \end{cases}$$

1.5564 Relation: [bi,di,fi,o,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{\sigma_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{\sigma_j} + 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5565 Relation: [bi,di,fi,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\overline{\sigma_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{\sigma_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i} - 1] \cup [\overline{\sigma_j}, \underline{o_j}] \cup [\overline{\sigma_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.5566 Relation: [bi,di,fi,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{\sigma_j} + 1, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\overline{\sigma_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{\sigma_j} + 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j}] \cup [\overline{\sigma_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{\sigma_j}, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i} - 1] \cup [\overline{\sigma_j}, \underline{o_j}] \cup [\overline{\sigma_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.5567 Relation: [bi,di,fi,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{\sigma_j} + 1, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\overline{\sigma_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j}] \cup [\overline{\sigma_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i} - 1] \cup [\overline{\sigma_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{\sigma_j} + 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.5568 Relation: [bi,di,fi,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5569 Relation: [bi,di,fi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5570 Relation: [bi,di,fi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5571 Relation: [bi,di,fi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5572 Relation: [bi,di,m]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.5573 Relation: [bi,di,m,mi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.5574 Relation: [bi,di,m,mi,o]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.5575 Relation: [bi,di,m,mi,o,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.5576 Relation: [bi,di,m,mi,o,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.5577 Relation: [bi,di,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.5578 Relation: [bi,di,m,mi,o,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5579 Relation: [bi,di,m,mi,o,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.5580 Relation: [bi,di,m,mi,o,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.5581 Relation: [bi,di,m,mi,o,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.5582 Relation: [bi,di,m,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.5583 Relation: [bi,di,m,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.5584 Relation: [bi,di,m,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.5585 Relation: [bi,di,m,mi,oi,si]

Complement relation.

$$] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i]$$

1.5586 Relation: [bi,di,m,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.5587 Relation: [bi,di,m,mi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - 2\ell_i + 3, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.5588 Relation: [bi,di,m,mi,si]

Complement relation.

$$\left. \begin{array}{l}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \end{array} \right\} \begin{array}{l} \text{if } \min(\ell_i, \ell_j) = 1 \\ \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array}$$

1.5589 Relation: [bi,di,m,o]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.5590 Relation: [bi,di,m,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o}_j - \ell_i - 1] \cup [\underline{o}_j - 1, \underline{o}_j] \cup [\underline{o}_j + \ell_j, \underline{o}_j + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\underline{o}_j, \underline{o}_j - \ell_i - \ell_j] \cup [\underline{o}_j + \ell_j, \underline{o}_j + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\underline{o}_j - \ell_i + 1, \underline{o}_j + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\underline{o}_j - \ell_i + 1, \underline{o}_j - \ell_i + 1] \cup [\underline{o}_j, \underline{o}_j + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\underline{o}_j + \ell_j - \ell_i, \underline{o}_j + \ell_j - \ell_i] \cup [\underline{o}_j, \underline{o}_j] \cup [\underline{o}_j + \ell_j, \underline{o}_j + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.5591 **Relation:** [bi,di,m,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\underline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.5592 **Relation:** [bi,di,m,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - 2] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - 2] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.5593 **Relation:** [bi,di,m,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.5594 Relation: [bi,di,m,o,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.5595 **Relation:** [bi,di,m,o,s,si]

Complement relation.

$$\begin{cases}]-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} + 1, o_j + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, o_j - \ell_i - 1] \cup [\overline{o_j}, o_j + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, o_j + \ell_j - \ell_i] \cup [\overline{o_j} + 1, o_j + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5596 Relation: [bi,di,m,o,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, o_j + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5597 Relation: [bi,di,m,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\underline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i < \underline{\ell_j} \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i \leq \underline{\ell_j} + 1 \wedge \min(\ell_i, \underline{\ell_j}) = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\underline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \underline{\ell_j} + 1 \wedge \underline{\ell_j} = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i > \underline{\ell_j} + 1 \wedge \underline{\ell_j} > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\underline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i \geq \underline{\ell_j} \wedge \ell_i \leq \underline{\ell_j} + 1 \wedge \ell_i > 1 \wedge \underline{\ell_j} > 1 \end{array} \right.$$

1.5598 Relation: [bi,di,m,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\underline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.5599 Relation: [bi,di,m,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.5600 Relation: [bi,di,m,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > 1 \end{cases}$$

1.5601 Relation: [bi,di,m,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.5602 Relation: [bi,di,m,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.5603 Relation: [bi,di,m,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5604 Relation: [bi,di,mi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j + 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.5605 Relation: [bi,di,mi,o]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.5606 Relation: [bi,di,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, \underline{o_j}] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.5607 Relation: [bi,di,mi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [-\infty, \underline{o_j}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.5608 **Relation:** [bi,di,mi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.5609 Relation: [bi,di,mi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} + \ell_j - \ell_i] & \text{if } \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5610 Relation: [bi,di,mi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\ [-\infty, \underline{o_j}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.5611 Relation: [bi,di,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{\ell_j} - 1] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j}, \underline{o_j} + \underline{\ell_j} - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \underline{\ell_i} + 1] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{\ell_j} - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5612 Relation: [bi,di,mi,o,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j - \ell_i] & \text{if } \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.5613 Relation: [bi,di,mi,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.5614 Relation: [bi,di,mi,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.5615 Relation: [bi,di,mi,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.5616 Relation: [bi,di,mi,oi,si]

Complement relation.

$$]-\infty, \underline{o_j} + \ell_j - \ell_i]$$

1.5617 Relation: [bi,di,mi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.5618 Relation: [bi,di,mi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.5619 Relation: [bi,di,mi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i + 1] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.5620 Relation: [bi,di,o]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.5621 Relation: [bi,di,o,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.5622 Relation: [bi,di,o,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.5623 Relation: [bi,di,o,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.5624 Relation: [bi,di,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5625 Relation: [bi,di,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.5626 Relation: [bi,di,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5627 Relation: [bi,di,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5628 Relation: [bi,di,oi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.5629 Relation: [bi,di,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.5630 Relation: [bi,di,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.5631 Relation: [bi,di,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > 1 \end{array} \right.$$

1.5632 Relation: [bi,di,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.5633 Relation: [bi,di,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.5634 Relation: [bi,di,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.5635 Relation: [bi,e]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \end{cases}$$

1.5636 Relation: [bi,e,f]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5637 Relation: [bi,e,f,fi]

Complement relation.

$$]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j]$$

1.5638 Relation: [bi,e,f,fi,m]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_j > 1 \end{cases}$$

1.5639 Relation: [bi,e,f,fi,m,mi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 2] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - 2] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 2, \underline{o_j}] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.5640 Relation: [bi,e,f,fi,m,mi,o]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 2] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - 2] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.5641 Relation: [bi,e,f,fi,m,mi,o,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5642 **Relation:** [bi,e,f,fi,m,mi,o,oi,s]

Complement relation.

$$\left. \begin{aligned} &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] && \text{if } \ell_i < \ell_j - 1 \\ &]-\infty, \underline{o_j} - \ell_i - 1] && \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, o_j] && \text{if } \ell_i > \ell_j \end{aligned} \right\}$$

1.5643 **Relation:** [bi,e,f,fi,m,mi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.5644 **Relation:** [bi,e,f,fi,m,mi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.5645 **Relation:** [bi,e,f,fi,m,mi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \end{array} \right.$$

1.5646 **Relation:** [bi,e,f,fi,m,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 2, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.5647 **Relation:** [bi,e,f,fi,m,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.5648 **Relation:** [bi,e,f,fi,m,mi,oi]

Complement relation.

$] -\infty, o_j - \ell_i - 1]$	if $\ell_i = 1 \wedge \ell_j = 1$
$] -\infty, o_j - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, o_j]$	if $\ell_i = \ell_j - 1 \wedge \ell_i > 1$
$] -\infty, o_j - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, o_j + \ell_j - \ell_i - 1]$	if $\ell_i \leq \ell_j \wedge \ell_i \neq \ell_j - 1 \wedge \ell_j > 1$
$] -\infty, o_j - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, o_j + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}]$	if $\ell_i > \ell_j \wedge \ell_j > 1$
$] -\infty, o_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}]$	if $\ell_i > \ell_j + 1 \wedge \ell_j = 1$
$] -\infty, o_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}]$	if $\ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1$

1.5649 Relation: [bi,e,f,fi,m,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5650 **Relation:** [bi,e,f,fi,m,mi,oi,s,si]

Complement relation.

$$\left. \begin{array}{l}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \\]-\infty, \underline{o_j} - \ell_i - 1] \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 2, \underline{o_j} + \ell_j - 2] \end{array} \right\} \begin{array}{l} \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array}$$

1.5651 **Relation:** [bi,e,f,fi,m,mi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.5652 **Relation:** [bi,e,f,fi,m,mi,s]

Complement relation.

$$\left. \begin{array}{l}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \\] -\infty, \underline{o_j} - \ell_i - 1] \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \end{array} \right\} \begin{array}{l} \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array}$$

1.5653 **Relation:** [bi,e,f,fi,m,mi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 2, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.5654 Relation: [bi,e,f,fi,m,mi,si]

Complement relation.

$$\left. \begin{array}{l}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \\]-\infty, \underline{\overline{o_j}} - \ell_i - 1] \cup [\overline{\overline{o_j}} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{\overline{o_j}} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \\]-\infty, \underline{o_j} - \ell_i - 1] \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \end{array} \right\} \begin{array}{l} \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array}$$

1.5655 Relation: [bi,e,f,fi,m,o]

Complement relation.

$$\begin{cases} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.5656 Relation: [bi,e,f,fi,m,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5657 **Relation:** [bi,e,f,fi,m,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5658 **Relation:** [bi,e,f,fi,m,o,oi,s,si]

Complement relation.

$$\left. \begin{aligned} &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] && \text{if } \ell_i < \ell_j - 1 \\ &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] && \text{if } \ell_i > \ell_j + 1 \\ &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] && \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \end{aligned} \right\}$$

1.5659 **Relation:** [bi,e,f,fi,m,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.5660 Relation: [bi,e,f,fi,m,o,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \end{cases}$$

1.5661 **Relation:** [bi,e,f,fi,m,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.5662 Relation: [bi,e,f,fi,m,o,si]

Complement relation.

$$\left. \begin{aligned} &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] && \text{if } \ell_i < \ell_j \\ &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] && \text{if } \ell_i > \ell_j + 1 \\ &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] && \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{aligned} \right\}$$

1.5663 **Relation:** [bi,e,f,fi,m,oi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5664 Relation: [bi,e,f,fi,m,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.5670 Relation: [bi,e,f,fi,mi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > 1 \end{cases}$$

1.5671 Relation: [bi,e,f,fi,mi,o]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.5672 Relation: [bi,e,f,fi,mi,o,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.5673 Relation: [bi,e,f,fi,mi,o,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5674 Relation: [bi,e,f,fi,mi,o,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.5675 Relation: [bi,e,f,fi,mi,o,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.5676 Relation: [bi,e,f,fi,mi,o,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \end{cases}$$

1.5677 Relation: [bi,e,f,fi,mi,o,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - \ell_i + 2, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.5678 Relation: [bi,e,f,fi,mi,o,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.5679 Relation: [bi,e,f,fi,mi,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5680 Relation: [bi,e,f,fi,mi,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5681 Relation: [bi,e,f,fi,mi,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i = \ell_j + 1 \\] - \infty, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.5682 Relation: [bi,e,f,fi,mi,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i \leq \ell_j + 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.5683 Relation: [bi,e,f,fi,mi,s]

Complement relation.

$$\begin{cases}]-\infty, o_j - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, o_j - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.5684 Relation: [bi,e,f,fi,mi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - \ell_i + 2, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.5685 Relation: [bi,e,f,fi,mi,si]

Complement relation.

$$\begin{cases}]-\infty, o_j + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, o_j + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, o_j + \ell_j - \ell_i - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, o_j - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.5686 Relation: [bi,e,f,fi,o]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.5687 Relation: [bi,e,f,fi,o,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.5688 **Relation:** [bi,e,f,fi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o}_j - \ell_i] \cup [\overline{o}_j + 1, \underline{o}_j + \ell_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j, \underline{o}_j + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o}_j - \ell_i] \cup [\overline{o}_j + \ell_j, \underline{o}_j + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o}_j - \ell_i] \cup [\overline{o}_j + \ell_j - \ell_i + 1, \underline{o}_j] \cup [\overline{o}_j + \ell_j, \underline{o}_j + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o}_j - \ell_i] \cup [\overline{o}_j + \ell_j - \ell_i + 1, \underline{o}_j + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.5689 **Relation:** [bi,e,f,fi,o,oi,s,si]

Complement relation.

$$\left. \begin{aligned} & [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ & [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ & [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \end{aligned} \right\}$$

1.5690 Relation: [bi,e,f,fi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o}_j - \underline{\ell}_i] \cup [\overline{o}_j, \underline{o}_j + \underline{\ell}_j - \underline{\ell}_i - 1] \cup [\overline{o}_j + \underline{\ell}_j, \underline{o}_j + \underline{\ell}_j] & \text{if } \underline{\ell}_i < \underline{\ell}_j \wedge \underline{\ell}_i > 1 \\ [-\infty, \underline{o}_j + \underline{\ell}_j - \underline{\ell}_i - 1] \cup [\overline{o}_j + \underline{\ell}_j, \underline{o}_j + \underline{\ell}_j] & \text{if } \underline{\ell}_i \leq \underline{\ell}_j + 1 \wedge \min(\underline{\ell}_i, \underline{\ell}_j) = 1 \\ [-\infty, \underline{o}_j - \underline{\ell}_i] \cup [\overline{o}_j + \underline{\ell}_j - \underline{\ell}_i + 1, \underline{o}_j - 1] \cup [\overline{o}_j + \underline{\ell}_j, \underline{o}_j + \underline{\ell}_j] & \text{if } \underline{\ell}_i > \underline{\ell}_j + 1 \\ [-\infty, \underline{o}_j - \underline{\ell}_i] \cup [\overline{o}_j + \underline{\ell}_j, \underline{o}_j + \underline{\ell}_j] & \text{if } \underline{\ell}_i \geq \underline{\ell}_j \wedge \underline{\ell}_i \leq \underline{\ell}_j + 1 \wedge \underline{\ell}_i > 1 \wedge \underline{\ell}_j > 1 \end{array} \right.$$

1.5691 **Relation:** [bi,e,f,fi,o,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \end{cases}$$

1.5692 **Relation:** [bi,e,f,fi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.5693 **Relation:** [bi,e,f,fi,o,si]

Complement relation.

$$\begin{cases} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.5694 Relation: [bi,e,f,fi,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.5695 Relation: [bi,e,f,fi,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.5696 Relation: [bi,e,f,fi,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.5697 Relation: [bi,e,f,fi,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.5698 Relation: [bi,e,f,fi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.5699 Relation: [bi,e,f,fi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.5700 Relation: [bi,e,f,fi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.5701 Relation: [bi,e,f,m]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5702 Relation: [bi,e,f,m,mi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5703 Relation: [bi,e,f,m,mi,o]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 2] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - 2] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5704 Relation: [bi,e,f,m,mi,o,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5705 Relation: [bi,e,f,m,mi,o,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5706 Relation: [bi,e,f,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5707 Relation: [bi,e,f,m,mi,o,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5708 Relation: [bi,e,f,m,mi,o,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 2] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 2] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5709 Relation: [bi,e,f,m,mi,o,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.5710 Relation: [bi,e,f,m,mi,o,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.5711 Relation: [bi,e,f,m,mi,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \neq \ell_j - 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \end{cases}$$

1.5712 Relation: [bi,e,f,m,mi,oi,s]

Complement relation.

$$\left. \begin{array}{l} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \\ [-\infty, \underline{o_j} - \ell_i - 1] \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \end{array} \right\} \begin{array}{l} \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ \text{if } \ell_i > \ell_j \end{array}$$

1.5713 **Relation:** [bi,e,f,m,mi,oi,s,si]

Complement relation.

$$\left. \begin{array}{l} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \\ [-\infty, \underline{o_j} - \ell_i - 1] \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, o_j - 1] \end{array} \right\} \begin{array}{l} \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \end{array}$$

1.5714 Relation: [bi,e,f,m,mi,oi,si]

Complement relation.

$$\left. \begin{aligned} & [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] && \text{if } \ell_i < \ell_j \\ & [-\infty, \underline{o_j} - \ell_i - 1] && \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ & [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] && \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{aligned} \right\}$$

1.5715 **Relation:** [bi,e,f,m,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.5716 Relation: [bi,e,f,m,mi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.5717 Relation: [bi,e,f,m,mi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.5718 Relation: [bi,e,f,m,o]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5719 Relation: [bi,e,f,m,o,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.5720 Relation: [bi,e,f,m,o,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.5721 Relation: [bi,e,f,m,o,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5722 Relation: [bi,e,f,m,o,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5729 **Relation:** [bi,e,f,m,oi,si]

Complement relation.

$$\left. \begin{aligned} &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] && \text{if } \ell_i < \ell_j \\ &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] && \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] && \text{if } \ell_j \geq \ell_j \wedge \ell_i > 1 \end{aligned} \right\}$$

1.5730 **Relation:** [bi,e,f,m,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.5731 Relation: [bi,e,f,m,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.5732 Relation: [bi,e,f,m,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_j \geq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.5733 **Relation:** [bi,e,f,mi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o_j}] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i = 1 \end{array} \right.$$

1.5734 Relation: [bi,e,f,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j}] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i = 1 \end{array} \right.$$

1.5735 Relation: [bi,e,f,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \underline{\ell_i}] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j}] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i = 1 \end{array} \right.$$

1.5736 Relation: [bi,e,f,mi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \underline{\ell_i}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j}] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5737 Relation: [bi,e,f,mi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \underline{\ell_i}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.5738 Relation: [bi,e,f,mi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \underline{\ell_i}] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - 2] & \text{if } \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5739 Relation: [bi,e,f,mi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j}] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5740 Relation: [bi,e,f,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.5741 Relation: [bi,e,f,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - 2] & \text{if } \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5742 Relation: [bi,e,f,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \neq \ell_j - 1 \\]-\infty, \underline{o_j}] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \end{array} \right.$$

1.5743 Relation: [bi,e,f,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\]-\infty, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.5744 Relation: [bi,e,f,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - 1] & \text{if } \ell_i \geq \ell_j - 1 \end{array} \right.$$

1.5745 Relation: [bi,e,f,mi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - 1] & \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.5746 Relation: [bi,e,f,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.5747 Relation: [bi,e,f,mi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.5748 Relation: [bi,e,f,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - 2] & \text{if } \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.5749 Relation: [bi,e,f,o]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5750 Relation: [bi,e,f,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5751 **Relation:** [bi,e,f,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ -\infty, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, o_j] \cup [\overline{o_j} + \ell_j, o_j + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5752 **Relation:** [bi,e,f,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i} - 1] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\ [-\infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5753 **Relation:** [bi,e,f,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o}_j - \ell_i] \cup [\overline{o}_j, \underline{o}_j + \ell_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j, \underline{o}_j + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o}_j - \ell_i] \cup [\overline{o}_j + \ell_j, \underline{o}_j + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o}_j + \ell_j - 2] \cup [\overline{o}_j + \ell_j, \underline{o}_j + \ell_j] & \text{if } \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o}_j - \ell_i] \cup [\overline{o}_j + \ell_j - \ell_i, \underline{o}_j - 1] \cup [\overline{o}_j + \ell_j, \underline{o}_j + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5754 **Relation:** [bi,e,f,o,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [-\infty, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5755 **Relation:** [bi,e,f,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5756 **Relation:** [bi,e,f,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} -\infty, \underline{o_j} - \ell_i \} \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ -\infty, \underline{o_j} - \ell_i \} \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ -\infty, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \min(\ell_i, \ell_j) = 1 \\ -\infty, \underline{o_j} - \ell_i \} \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5757 Relation: [bi,e,f,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \neq \ell_j - 1 \\] - \infty, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \end{cases}$$

1.5758 Relation: [bi,e,f,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.5759 Relation: [bi,e,f,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \end{cases}$$

1.5760 Relation: [bi,e,f,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.5761 Relation: [bi,e,f,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5762 Relation: [bi,e,f,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.5763 Relation: [bi,e,f,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.5764 Relation: [bi,e,fi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.5765 Relation: [bi,e,fi,m]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.5766 Relation: [bi,e,fi,m,mi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.5767 Relation: [bi,e,fi,m,mi,o]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.5768 Relation: [bi,e,fi,m,mi,o,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5769 Relation: [bi,e,fi,m,mi,o,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5770 Relation: [bi,e,fi,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.5771 Relation: [bi,e,fi,m,mi,o,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.5772 Relation: [bi,e,fi,m,mi,o,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5773 Relation: [bi,e,fi,m,mi,o,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.5774 Relation: [bi,e,fi,m,mi,o,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.5775 Relation: [bi,e,fi,m,mi,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - 2] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 2, \underline{o_j}] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.5776 Relation: [bi,e,fi,m,mi,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 2, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.5782 Relation: [bi,e,fi,m,o]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \neq \ell_j + 1 \end{cases}$$

1.5783 Relation: [bi,e,fi,m,o,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{cases}$$

1.5784 Relation: [bi,e,fi,m,o,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 2, \underline{o_j} + \ell_j] & \text{if } \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.5785 Relation: [bi,e,fi,m,o,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.5786 Relation: [bi,e,fi,m,o,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.5787 Relation: [bi,e,fi,m,o,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

Complement relation.

Complement relation.

Complement relation.

Complement relation.

Complement relation.

Complement relation.

998

1.5794 Relation: [bi,e,fi,m,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 2, \underline{o_j} + \ell_j] & \text{if } \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.5795 Relation: [bi,e,fi,m,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.5796 Relation: [bi,e,fi,m,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.5797 Relation: [bi,e,fi,mi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.5798 Relation: [bi,e,fi,mi,o]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.5799 Relation: [bi,e,fi,mi,o,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5800 Relation: [bi,e,fi,mi,o,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{\sigma_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{\sigma_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5801 Relation: [bi,e,fi,mi,o,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{\sigma_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{\sigma_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.5802 Relation: [bi,e,fi,mi,o,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{\sigma_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{\sigma_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.5803 Relation: [bi,e,fi,mi,o,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{\sigma_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{\sigma_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{\sigma_j} - \ell_i + 2, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.5804 Relation: [bi,e,fi,mi,o,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{\sigma_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{\sigma_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{\sigma_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{\sigma_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.5805 Relation: [bi,e,fi,mi,o,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{\sigma_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{\sigma_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{\sigma_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{\sigma_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{\sigma_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.5806 Relation: [bi,e,fi,mi,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - 1] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5807 Relation: [bi,e,fi,mi,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - 1] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5808 Relation: [bi,e,fi,mi,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.5809 Relation: [bi,e,fi,mi,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.5810 Relation: [bi,e,fi,mi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5811 Relation: [bi,e,fi,mi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.5812 Relation: [bi,e,fi,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.5813 Relation: [bi,e,fi,o]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \neq \ell_j + 1 \end{array} \right.$$

1.5814 Relation: [bi,e,fi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5815 Relation: [bi,e,fi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - \ell_i + 2, \underline{o_j} + \ell_j] & \text{if } \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5816 Relation: [bi,e,fi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.5817 Relation: [bi,e,fi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.5818 Relation: [bi,e,fi,o,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5819 Relation: [bi,e,fi,o,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.5820 Relation: [bi,e,fi,o,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.5821 Relation: [bi,e,fi,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.5822 Relation: [bi,e,fi,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - \ell_i + 2, \underline{o_j} + \ell_j] & \text{if } \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.5823 Relation: [bi,e,fi,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.5824 Relation: [bi,e,fi,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.5825 Relation: [bi,e,fi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5826 Relation: [bi,e,fi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 2] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.5827 Relation: [bi,e,fi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.5828 Relation: [bi,e,m]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \end{cases}$$

1.5829 Relation: [bi,e,m,mi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \neq \ell_j \end{cases}$$

1.5830 Relation: [bi,e,m,mi,o]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - 2] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5831 Relation: [bi,e,m,mi,o,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5832 Relation: [bi,e,m,mi,o,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5833 Relation: [bi,e,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5834 Relation: [bi,e,m,mi,o,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5835 Relation: [bi,e,m,mi,o,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5836 Relation: [bi,e,m,mi,o,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.5837 **Relation:** [bi,e,m,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5838 **Relation:** [bi,e,m,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j - \ell_i + 1, \underline{o}_j + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [-\infty, \underline{o}_j - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j - \ell_i + 1, \underline{o}_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j - \ell_i + 1, \underline{o}_j] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.5839 **Relation:** [bi,e,m,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.5840 **Relation:** [bi,e,m,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.5841 Relation: [bi,e,m,mi,oi,si]

Complement relation.

$$\left. \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \right\}$$

1.5842 **Relation:** [bi,e,m,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.5843 **Relation:** [bi,e,m,mi,s,si]

Complement relation.

$$\begin{cases} [-\infty, \underline{o}_j - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j + 1, \underline{o}_j + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j - \ell_i + 1, \underline{o}_j - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j - \ell_i + 1, \underline{o}_j - 1] \cup [\overline{o}_j + 1, \underline{o}_j + \ell_j - 1] & \text{if } \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.5844 **Relation:** [bi,e,m,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.5845 **Relation:** [bi,e,m,o]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.5846 **Relation:** [bi,e,m,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.5847 **Relation:** [bi,e,m,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5848 **Relation:** [bi,e,m,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.5849 Relation: [bi,e,m,o,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5850 Relation: [bi,e,m,o,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5851 Relation: [bi,e,m,o,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5852 Relation: [bi,e,m,o,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5853 Relation: [bi,e,m,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.5854 Relation: [bi,e,m,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.5855 Relation: [bi,e,m,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.5856 Relation: [bi,e,m,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.5857 Relation: [bi,e,m,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5858 Relation: [bi,e,m,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > 1 \end{cases}$$

1.5859 Relation: [bi,e,m,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.5860 Relation: [bi,e,mi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \neq \ell_j \end{cases}$$

1.5861 Relation: [bi,e,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j}, \underline{o_j} + \underline{\ell_j} - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{\ell_j} - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} + \underline{\ell_j} - 1] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.5862 Relation: [bi,e,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \underline{\ell_i}] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} + \underline{\ell_j} - 1] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.5863 Relation: [bi,e,mi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \underline{\ell_i}] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j}] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5864 Relation: [bi,e,mi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \underline{\ell_i}] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] & \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5865 Relation: [bi,e,mi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \underline{\ell_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \underline{\ell_i}] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] & \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5866 Relation: [bi,e,mi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{\ell_j} - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j}] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5867 Relation: [bi,e,mi,o,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}-1] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j}-\ell_i] \cup [\overline{o_j}+1, \underline{o_j}+\ell_j-1] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j}-\ell_i] \cup [\overline{o_j}+\ell_j-\ell_i, \underline{o_j}-1] \cup [\overline{o_j}+1, \underline{o_j}+\ell_j-1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.5868 Relation: [bi,e,mi,o,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}-\ell_i] \cup [\overline{o_j}, \underline{o_j}+\ell_j-1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j}+\ell_j-1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j}-\ell_i] \cup [\overline{o_j}+1, \underline{o_j}+\ell_j-1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j}-1] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j}-\ell_i] \cup [\overline{o_j}+\ell_j-\ell_i, \underline{o_j}-1] \cup [\overline{o_j}+1, \underline{o_j}+\ell_j-1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.5869 Relation: [bi,e,mi,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}+\ell_j-\ell_i] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j}-1] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5870 Relation: [bi,e,mi,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}-1] \cup [\overline{o_j}+1, \underline{o_j}+\ell_j-\ell_i] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j}-1] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5871 Relation: [bi,e,mi,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}-1] \cup [\overline{o_j}+1, \underline{o_j}+\ell_j-\ell_i] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j}-1] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.5872 Relation: [bi,e,mi,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}+\ell_j-\ell_i] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j}-1] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.5873 Relation: [bi,e,mi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}-1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j}-1] \cup [\overline{o_j}+1, \underline{o_j}+\ell_j-1] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j}+\ell_j-1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5874 Relation: [bi,e,mi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}-1] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j}-1] \cup [\overline{o_j}+1, \underline{o_j}+\ell_j-1] & \text{if } \ell_j > 1 \end{cases}$$

1.5875 Relation: [bi,e,mi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}+\ell_j-1] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j}-1] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j}-1] \cup [\overline{o_j}+1, \underline{o_j}+\ell_j-1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.5876 Relation: [bi,e,o]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}-\ell_i] \cup [\overline{o_j}, \underline{o_j}+\ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j}-\ell_i] \cup [\overline{o_j}+1, \underline{o_j}+\ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j}-\ell_i] \cup [\overline{o_j}+\ell_j-\ell_i, \underline{o_j}+\ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j}+\ell_j] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.5877 Relation: [bi,e,o,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}-\ell_i] \cup [\overline{o_j}, \underline{o_j}+\ell_j-\ell_i] \cup [\overline{o_j}+\ell_j, \underline{o_j}+\ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j}-\ell_i] \cup [\overline{o_j}+\ell_j, \underline{o_j}+\ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j}-\ell_i] \cup [\overline{o_j}+\ell_j-\ell_i, \underline{o_j}] \cup [\overline{o_j}+\ell_j, \underline{o_j}+\ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j}+\ell_j] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.5878 Relation: [bi,e,o,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}-\ell_i] \cup [\overline{o_j}+1, \underline{o_j}+\ell_j-\ell_i] \cup [\overline{o_j}+\ell_j, \underline{o_j}+\ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j}-1] \cup [\overline{o_j}+1, \underline{o_j}+\ell_j] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j}-\ell_i] \cup [\overline{o_j}+\ell_j, \underline{o_j}+\ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j}+1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j}-\ell_i] \cup [\overline{o_j}+\ell_j-\ell_i, \underline{o_j}] \cup [\overline{o_j}+\ell_j, \underline{o_j}+\ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.5879 Relation: [bi,e,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5880 Relation: [bi,e,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5881 Relation: [bi,e,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5882 Relation: [bi,e,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5883 Relation: [bi,e,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5884 Relation: [bi,e,oi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.5885 Relation: [bi,e,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5886 Relation: [bi,e,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.5887 Relation: [bi,e,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.5888 Relation: [bi,e,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.5889 Relation: [bi,e,s,si]

Complement relation.

$$] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j]$$

1.5890 Relation: [bi,e,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.5891 Relation: [bi,f]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.5892 Relation: [bi,f,fi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \end{cases}$$

1.5893 Relation: [bi,f,fi,m]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 2, \underline{o_j} + \ell_j] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \ell_j > 1 \end{cases}$$

1.5894 Relation: [bi,f,fi,m,mi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \neq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.5895 Relation: [bi,f,fi,m,mi,o]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 2] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - 2] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.5896 Relation: [bi,f,fi,m,mi,o,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.5897 Relation: [bi,f,fi,m,mi,o,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.5898 Relation: [bi,f,fi,m,mi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \end{array} \right.$$

1.5899 Relation: [bi,f,fi,m,mi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.5900 Relation: [bi,f,fi,m,mi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.5901 Relation: [bi,f,fi,m,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 2, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.5902 Relation: [bi,f,fi,m,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_j + \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.5903 Relation: [bi,f,fi,m,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.5904 Relation: [bi,f,fi,m,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 2] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - 2] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 2, \underline{o_j}] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5905 Relation: [bi,f,fi,m,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 2, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.5906 Relation: [bi,f,fi,m,mi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.5907 Relation: [bi,f,fi,m,mi,s]

Complement relation.

$$\left. \begin{array}{l}]-\infty, \underline{o_j}-2] \cup [\overline{o_j}+1, \underline{o_j}+\ell_j-2] \\]-\infty, \underline{o_j}-\ell_i-1] \cup [\overline{o_j}-\ell_i+1, \underline{o_j}-1] \cup [\overline{o_j}+1, \underline{o_j}+\ell_j-\ell_i-1] \cup [\overline{o_j}+\ell_j-\ell_i+1, \underline{o_j}+\ell_j-1] \\]-\infty, \underline{o_j}-\ell_i-1] \cup [\overline{o_j}-\ell_i+1, \underline{o_j}+\ell_j-1] \\]-\infty, \underline{o_j}-2] \\]-\infty, \underline{o_j}-\ell_i-1] \cup [\overline{o_j}-\ell_i+1, \underline{o_j}-1] \cup [\overline{o_j}+2, \underline{o_j}+\ell_j-1] \\]-\infty, \underline{o_j}-\ell_i-1] \cup [\overline{o_j}-\ell_i+2, \underline{o_j}] \\]-\infty, \underline{o_j}-\ell_i-1] \cup [\overline{o_j}-\ell_i+1, \underline{o_j}+\ell_j-\ell_i-1] \cup [\overline{o_j}+\ell_j-\ell_i+1, \underline{o_j}+\ell_j-1] \end{array} \right\} \begin{array}{l} \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \text{if } \ell_i = \ell_j \\ \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array}$$

1.5908 Relation: [bi,f,fi,m,mi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, o_j - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, o_j + \ell_j - 1] & \text{if } \ell_i = \ell_j \\]-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, o_j + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, o_j - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, o_j - \ell_i - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 2, o_j + \ell_j - 2] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.5909 Relation: [bi,f,fi,m,mi,si]

Complement relation.

$$\left. \begin{array}{l}]-\infty, \underline{o}_j - \underline{\ell}_i - 1] \cup [\overline{o}_j - \underline{\ell}_i + 1, \underline{o}_j + \underline{\ell}_j - \underline{\ell}_i - 1] \cup [\overline{o}_j + \underline{\ell}_j - \underline{\ell}_i + 1, \underline{o}_j + \underline{\ell}_j - 1] \\]-\infty, \underline{o}_j - \underline{\ell}_i - 1] \cup [\overline{o}_j, \underline{o}_j + \underline{\ell}_j - \underline{\ell}_i - 1] \\]-\infty, \underline{o}_j - \underline{\ell}_i - 1] \cup [\overline{o}_j - \underline{\ell}_i + 1, \underline{o}_j + \underline{\ell}_j - 1] \\]-\infty, \underline{o}_j - \underline{\ell}_i - 1] \\]-\infty, \underline{o}_j - \underline{\ell}_i - 1] \cup [\overline{o}_j - \underline{\ell}_i + 1, \underline{o}_j + \underline{\ell}_j - \underline{\ell}_i - 1] \cup [\overline{o}_j + 1, \underline{o}_j + \underline{\ell}_j - 1] \\]-\infty, \underline{o}_j - \underline{\ell}_i - 1] \cup [\overline{o}_j, \underline{o}_j] \\]-\infty, \underline{o}_j - \underline{\ell}_i - 1] \cup [\overline{o}_j + \underline{\ell}_j - \underline{\ell}_i + 1, \underline{o}_j - 1] \\]-\infty, \underline{o}_j - \underline{\ell}_i - 1] \cup [\overline{o}_j - \underline{\ell}_i + 1, \underline{o}_j + \underline{\ell}_j - \underline{\ell}_i - 1] \cup [\overline{o}_j + \underline{\ell}_j - \underline{\ell}_i + 1, \underline{o}_j - 1] \cup [\overline{o}_j + 1, \underline{o}_j + \underline{\ell}_j - 1] \end{array} \right\} \begin{array}{l} \text{if } \underline{\ell}_i < \underline{\ell}_j \wedge \underline{\ell}_i > 1 \\ \text{if } \underline{\ell}_i < \underline{\ell}_j - 1 \wedge \underline{\ell}_i = 1 \\ \text{if } \underline{\ell}_i = \underline{\ell}_j \wedge \underline{\ell}_i > 1 \\ \text{if } \underline{\ell}_i = \underline{\ell}_j + 1 \wedge \underline{\ell}_j = 1 \\ \text{if } \underline{\ell}_i = \underline{\ell}_j + 1 \wedge \underline{\ell}_j > 1 \\ \text{if } \underline{\ell}_i \leq \underline{\ell}_j \wedge \underline{\ell}_i \geq \underline{\ell}_j - 1 \wedge \underline{\ell}_i = 1 \\ \text{if } \underline{\ell}_i > \underline{\ell}_j + 1 \wedge \underline{\ell}_j = 1 \\ \text{if } \underline{\ell}_i > \underline{\ell}_j + 1 \wedge \underline{\ell}_j > 1 \end{array}$$

1.5910 Relation: [bi,f,fi,m,o]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.5911 Relation: [bi,f,fi,m,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.5917 **Relation:** [bi,f,fi,m,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_j + \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.5918 Relation: [bi,f,fi,m,oi]

Complement relation.

$$\left. \begin{array}{l}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + 1] \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] \end{array} \right\} \begin{array}{l} \text{if } \ell_i < \ell_j - 1 \\ \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array}$$

1.5919 Relation: [bi,f,fi,m,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} + 1, o_j + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, o_j + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, o_j - 1] \cup [\overline{o_j} + 1, o_j + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, o_j + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_j + \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, o_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, o_j + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.5920 **Relation:** [bi,f,fi,m,oi,s,si]

Complement relation.

$[-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j]$	if $\ell_i < \ell_j - 1 \wedge \ell_i > 1$
$[-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j]$	if $\ell_i = \ell_j - 1 \wedge \ell_i > 1$
$[-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j]$	if $\ell_i > \ell_j + 1 \wedge \ell_j > 1$
$[-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + 2\ell_j - 2\ell_i] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j]$	if $\ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1$
$[-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + 2\ell_j + \ell_i - 3, \underline{o_j} + \ell_j]$	if $\ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1$
$[-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 2, \underline{o_j} + \ell_j - 2] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j]$	if $\ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1$

1.5921 Relation: [bi,f,fi,m,oi,si]

Complement relation.

$$\left. \begin{array}{l} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_i - 1, \underline{o_j} + 1] \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] \end{array} \right\} \begin{array}{l} \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array}$$

1.5922 Relation: [bi,f,fi,m,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 2] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 2, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.5923 Relation: [bi,f,fi,m,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 2, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.5924 Relation: [bi,f,fi,m,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, o_j + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, o_j + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} + 1, o_j + 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, o_j + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, o_j + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, o_j + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, o_j + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, o_j - 1] \cup [\overline{o_j} + 1, o_j + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.5925 **Relation: [bi,f,fi,mi]**

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \neq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.5926 Relation: [bi,f,fi,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.5927 Relation: [bi,f,fi,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.5928 Relation: [bi,f,fi,mi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_j + \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.5929 Relation: [bi,f,fi,mi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_j + \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.5930 Relation: [bi,f,fi,mi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j + 1 \\] - \infty, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.5931 Relation: [bi,f,fi,mi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_j + 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.5932 Relation: [bi,f,fi,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - \ell_j + \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_j - 2\ell_i + 3] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - \ell_i + 2, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.5933 Relation: [bi,f,fi,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - \ell_j + \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.5934 Relation: [bi,f,fi,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j}] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.5935 Relation: [bi,f,fi,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_j + \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.5936 Relation: [bi,f,fi,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i = \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_j + \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.5937 Relation: [bi,f,fi,mi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{array} \right.$$

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, o_j - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, o_j + \ell_j - 1] & \text{if } \ell_i = \ell_j \\ [-\infty, o_j + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, o_j + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, o_j - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, o_j + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, o_j - \ell_i] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [-\infty, o_j - \ell_i] \cup [\overline{o_j} - \ell_i + 2, o_j + \ell_j - 2] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

Complement relation.

$$\left. \begin{array}{l} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] \\ [-\infty, \underline{o_j} + \ell_j] \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] \\ [-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] \end{array} \right\} \begin{array}{l} \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \\ \text{if } \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array}$$

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i} - 1] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} < \underline{\ell_j} - 1 \wedge \underline{\ell_i} > 1 \\ [-\infty, \underline{o_j} + 1] & \text{if } \underline{\ell_i} = 1 \wedge \underline{\ell_j} = 1 \\ [-\infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j}] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} > \underline{\ell_j} + 1 \wedge \underline{\ell_j} > 1 \\ [-\infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} \geq \underline{\ell_j} - 1 \wedge \underline{\ell_i} \leq \underline{\ell_j} + 1 \wedge \underline{\ell_i} > 1 \wedge \underline{\ell_j} > 1 \\ [-\infty, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i} - 1] \cup [\overline{o_j} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} \neq \underline{\ell_j} \wedge \min(\underline{\ell_i}, \underline{\ell_j}) = 1 \end{array} \right.$$

1.5943 **Relation:** [bi,f,fi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.5944 **Relation:** [bi,f,fi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i} - 1] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} < \underline{\ell_j} - 1 \\ [-\infty, \underline{o_j} + 1] & \text{if } \underline{\ell_i} = 1 \wedge \underline{\ell_j} = 1 \\ [-\infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} = \underline{\ell_j} \wedge \underline{\ell_i} > 1 \\ [-\infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} > \underline{\ell_j} + 1 \\ [-\infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} \geq \underline{\ell_j} - 1 \wedge \underline{\ell_i} \leq \underline{\ell_j} + 1 \wedge \underline{\ell_i} \neq \underline{\ell_j} \end{array} \right.$$

1.5945 **Relation:** [bi,f,fi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.5946 **Relation:** [bi,f,fi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \end{array} \right.$$

1.5947 Relation: [bi,f,fi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - \ell_j + \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.5948 Relation: [bi,f,fi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - \ell_j + \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.5949 Relation: [bi,f,fi,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5950 Relation: [bi,f,fi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_j + \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5951 Relation: [bi,f,fi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} + 2\ell_j - 2\ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.5952 Relation: [bi,f,fi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.5953 **Relation:** [bi,f,fi,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.5954 **Relation:** [bi,f,fi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \\ [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\ [-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, o_j - 1] \cup [\overline{o_j} + 1, o_j + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.5955 **Relation:** [bi,f,fi,si]

Complement relation.

$$\begin{cases} [-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ [-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \\ [-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, o_j - 1] \cup [\overline{o_j} + 1, o_j + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.5956 Relation: [bi,f,m]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.5957 **Relation:** [bi,f,m,mi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.5958 **Relation:** [bi,f,m,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.5959 Relation: [bi,f,m,mi,o,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.5960 **Relation:** [bi,f,m,mi,o,oi,s]

Complement relation.

$$\left. \begin{aligned} &] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] && \text{if } \ell_i < \ell_j - 1 \\ &] - \infty, \underline{o_j} - \ell_i - 1] && \text{if } \ell_i = \ell_j - 1 \\ &] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, o_j] && \text{if } \ell_i \geq \ell_j \end{aligned} \right\}$$

1.5961 **Relation:** [bi,f,m,mi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i = \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.5962 **Relation:** [bi,f,m,mi,o,oi,si]

Complement relation.

$$\left. \begin{aligned} & [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] && \text{if } \ell_i < \ell_j \\ & [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] && \text{if } \ell_i = \ell_j \\ & [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] && \text{if } \ell_i > \ell_j \end{aligned} \right\}$$

1.5963 Relation: [bi,f,m,mi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.5964 **Relation:** [bi,f,m,mi,o,s,si]

Complement relation.

$$\left. \begin{array}{l}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \\] -\infty, \underline{o_j} - \ell_i - 1] \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \end{array} \right\} \begin{array}{l} \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \text{if } \ell_i = \ell_j \\ \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array}$$

1.5965 **Relation:** [bi,f,m,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.5966 Relation: [bi,f,m,mi,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i \geq \ell_j - 1 \end{cases}$$

1.5967 **Relation:** [bi,f,m,mi,oi,s]

Complement relation.

$$\left. \begin{array}{l} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \\ [-\infty, \underline{o_j} - \ell_i - 1] \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \end{array} \right\} \begin{array}{l} \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ \text{if } \ell_i \geq \ell_j \end{array}$$

1.5968 **Relation:** [bi,f,m,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.5969 Relation: [bi,f,m,mi,oi,si]

Complement relation.

$$\left. \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i = \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \end{array} \right\}$$

1.5970 **Relation:** [bi,f,m,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.5971 Relation: [bi,f,m,mi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5972 Relation: [bi,f,m,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.5973 Relation: [bi,f,m,o]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.5974 Relation: [bi,f,m,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.5975 Relation: [bi,f,m,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.5976 **Relation:** [bi,f,m,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - 2] \cup [\overline{o_j} + 2\ell_j - 2\ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.5977 **Relation:** [bi,f,m,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.5978 **Relation:** [bi,f,m,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 2\ell_j - 2\ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.5979 Relation: [bi,f,m,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 2\ell_j - 2\ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.5980 **Relation:** [bi,f,m,o,si]

Complement relation.

$$\left. \begin{aligned} &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\ &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{aligned} \right\}$$

1.5981 **Relation:** [bi,f,m,oi]

Complement relation.

$$\left. \begin{aligned} &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] && \text{if } \ell_i < \ell_j - 1 \\ &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] && \text{if } \ell_j = 1 \\ &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] && \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \end{aligned} \right\}$$

1.5987 Relation: [bi,f,m,si]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.5988 Relation: [bi,f,mi]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] -\infty, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] -\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\] -\infty, \underline{o_j}] & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.5989 Relation: [bi,f,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] -\infty, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\] -\infty, \underline{o_j}] & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.5990 Relation: [bi,f,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] -\infty, \underline{o_j}] & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.5991 Relation: [bi,f,mi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\] -\infty, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j - 1 \\] -\infty, \underline{o_j}] & \text{if } \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.5992 Relation: [bi,f,mi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\] -\infty, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.5993 Relation: [bi,f,mi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.5994 Relation: [bi,f,mi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_j + 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.5995 Relation: [bi,f,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 2\ell_j - 2\ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - 1] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.5996 Relation: [bi,f,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + \ell_j - 2] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.5997 Relation: [bi,f,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j}] & \text{if } \ell_i \geq \ell_j - 1 \end{array} \right.$$

1.5998 Relation: [bi,f,mi,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}-1] \cup [\overline{o_j}+1, \underline{o_j}+\ell_j-\ell_i-1] & \text{if } \ell_i < \ell_j-1 \\]-\infty, \underline{o_j}-1] & \text{if } \ell_i = \ell_j-1 \\]-\infty, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.5999 Relation: [bi,f,mi,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}-1] \cup [\overline{o_j}+1, \underline{o_j}+\ell_j-\ell_i-1] & \text{if } \ell_i < \ell_j-1 \\]-\infty, \underline{o_j}] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j}-1] & \text{if } \ell_i \geq \ell_j-1 \wedge \ell_i \neq \ell_j \end{cases}$$

1.6000 Relation: [bi,f,mi,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}+\ell_j-\ell_i-1] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j}] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j}-1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.6001 Relation: [bi,f,mi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}-1] \cup [\overline{o_j}+1, \underline{o_j}+\ell_j-\ell_i-1] & \text{if } \ell_i < \ell_j-1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j}-1] \cup [\overline{o_j}+1, \underline{o_j}+\ell_j-\ell_i-1] \cup [\overline{o_j}+\ell_j-\ell_i+1, \underline{o_j}+\ell_j-1] & \text{if } \ell_i < \ell_j-1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j}-1] \cup [\overline{o_j}+\ell_j-\ell_i+1, \underline{o_j}+\ell_j-1] & \text{if } \ell_i = \ell_j-1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j}+\ell_j-1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j}-\ell_j+1] & \text{if } \ell_i \geq \ell_j-1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.6002 Relation: [bi,f,mi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}-1] \cup [\overline{o_j}+1, \underline{o_j}+\ell_j-\ell_i-1] & \text{if } \ell_i < \ell_j-1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j}-1] \cup [\overline{o_j}+1, \underline{o_j}+\ell_j-\ell_i-1] \cup [\overline{o_j}+\ell_j-\ell_i+1, \underline{o_j}+\ell_j-1] & \text{if } \ell_i < \ell_j-1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j}+\ell_j-1] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j}-1] \cup [\overline{o_j}+\ell_j-\ell_i+1, \underline{o_j}+\ell_j-1] & \text{if } \ell_i = \ell_j-1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j}-1] \cup [\overline{o_j}+1, \underline{o_j}+\ell_j-1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j}-1] & \text{if } \ell_i \geq \ell_j-1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.6003 Relation: [bi,f,mi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}+\ell_j-\ell_i-1] \cup [\overline{o_j}+\ell_j-\ell_i+1, \underline{o_j}+\ell_j-1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j}+\ell_j-1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j-1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j}-1] \cup [\overline{o_j}+1, \underline{o_j}+\ell_j-1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j}+\ell_j-2] & \text{if } \ell_i \neq \ell_j-1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.6004 Relation: [bi,f,o]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6005 **Relation:** [bi,f,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.6006 Relation: [bi,f,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\ [-\infty, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, o_j] \cup [\overline{o_j} + \ell_j, o_j + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6007 Relation: [bi,f,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\ [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.6008 **Relation:** [bi,f,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.6009 Relation: [bi,f,o,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\ [-\infty, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6010 Relation: [bi,f,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 2\ell_j - 2\ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.6011 Relation: [bi,f,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.6012 Relation: [bi,f,oi]

Complement relation.

$$\begin{cases} [-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\ [-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \end{cases}$$

1.6013 Relation: [bi,f,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\ [-\infty, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\ [-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6014 Relation: [bi,f,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \end{array} \right.$$

1.6015 Relation: [bi,f,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.6016 Relation: [bi,f,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.6017 Relation: [bi,f,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j - 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.6018 Relation: [bi,f,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.6019 Relation: [bi,fi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.6020 Relation: [bi,fi,m]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 2, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{cases}$$

1.6021 Relation: [bi,fi,m,mi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 2, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.6022 Relation: [bi,fi,m,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.6023 Relation: [bi,fi,m,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6024 Relation: [bi,fi,m,mi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6025 Relation: [bi,fi,m,mi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.6026 Relation: [bi,fi,m,mi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.6027 Relation: [bi,fi,m,mi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6028 Relation: [bi,fi,m,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6029 **Relation:** [bi,fi,m,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o}_j - \ell_i - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j + 1, \underline{o}_j + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j, \underline{o}_j + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j - \ell_i + 1, \underline{o}_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j - \ell_i + 1, \underline{o}_j - 1] \cup [\overline{o}_j + 1, \underline{o}_j + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6030 Relation: [bi,fi,m,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 2, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.6031 Relation: [bi,fi,m,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i = \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 2, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.6032 **Relation:** [bi,fi,m,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i = \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6033 Relation: [bi,fi,m,mi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6034 Relation: [bi,fi,m,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 2, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.6035 **Relation:** [bi,fi,m,mi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6036 Relation: [bi,fi,m,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6037 Relation: [bi,fi,m,o]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, o_j + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.6038 Relation: [bi,fi,m,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6039 Relation: [bi,fi,m,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 2, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.6040 **Relation:** [bi,fi,m,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - 2] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_j + \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.6041 Relation: [bi,fi,m,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \underline{o_j} - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.6042 **Relation:** [bi,fi,m,o,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.6043 **Relation:** [bi,fi,m,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.6044 Relation: [bi,fi,m,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \underline{\ell_i} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} = \underline{\ell_j} + 1 \\]-\infty, \underline{o_j} - \underline{\ell_i} - 1] \cup [\overline{o_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} \leq \underline{\ell_j} \\]-\infty, \underline{o_j} - \underline{\ell_i} - 1] \cup [\overline{o_j} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \underline{\ell_i} > \underline{\ell_j} + 1 \end{array} \right.$$

1.6045 Relation: [bi,fi,m,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j - \ell_i + 1, \underline{o}_j + \ell_j - \ell_i] \cup [\overline{o}_j + \ell_j, \underline{o}_j + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j, \underline{o}_j + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j - \ell_i + 1, \underline{o}_j + \ell_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j - \ell_i + 1, \underline{o}_j] \cup [\overline{o}_j + \ell_j, \underline{o}_j + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j - \ell_i + 1, \underline{o}_j + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.6046 Relation: [bi,fi,m,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 2, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.6047 **Relation:** [bi,fi,m,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_i - 1, \underline{o_j} + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + 2\ell_j - 2\ell_i] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6048 Relation: [bi,fi,m,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_i - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6049 Relation: [bi,fi,m,s]

Complement relation.

$$\begin{cases} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 2, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.6050 **Relation:** [bi,fi,m,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6051 Relation: [bi,fi,m,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_i - 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6052 **Relation:** [bi,fi,mi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o}_j + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o}_j + \ell_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j - \ell_i + 1, \underline{o}_j + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.6053 Relation: [bi,fi,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.6054 **Relation:** [bi,fi,mi,o,oi]

Complement relation.

$$\begin{cases} [-\infty, \underline{o}_j - \ell_i] \cup [\overline{o}_j, \underline{o}_j + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o}_j + \ell_j - 1] & \text{if } \ell_i = 1 \\ [-\infty, \underline{o}_j - \ell_i] \cup [\overline{o}_j + \ell_j - \ell_i + 1, \underline{o}_j] & \text{if } \ell_i > \ell_j + 1 \\ [-\infty, \underline{o}_j - \ell_i] \cup [\overline{o}_j, \underline{o}_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.6055 Relation: [bi,fi,mi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.6056 Relation: [bi,fi,mi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \underline{\ell_i}] & \text{if } \ell_i = \ell_j + 1 \\]-\infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.6057 Relation: [bi,fi,mi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} + \underline{\ell_j} - 1] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \underline{\ell_i}] & \text{if } \ell_i = \ell_j + 1 \\]-\infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.6058 Relation: [bi,fi,mi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{\ell_j} - 1] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j} + \underline{\ell_j} - 1] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j}, \underline{o_j} + \underline{\ell_j} - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.6059 Relation: [bi,fi,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j}, \underline{o_j} + \underline{\ell_j} - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + 2\underline{\ell_j} - 2\underline{\ell_i}] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{\ell_j} - 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{\ell_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6060 Relation: [bi,fi,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - 2\ell_i + 1] & \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6061 Relation: [bi,fi,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6062 Relation: [bi,fi,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j}] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6063 Relation: [bi,fi,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} + 2\ell_j - 2\ell_i] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.6064 Relation: [bi,fi,mi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 2] & \text{if } \ell_i = \ell_j + 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.6065 Relation: [bi,fi,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6066 Relation: [bi,fi,mi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6067 Relation: [bi,fi,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + 2\ell_j - 2\ell_i] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6068 Relation: [bi,fi,o]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.6069 Relation: [bi,fi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6070 Relation: [bi,fi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - \ell_i + 2, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.6071 Relation: [bi,fi,o,oi,s,si]

Complement relation.

$$\begin{cases}
] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\
] - \infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\
] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\
] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\
] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\
] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1
\end{cases}$$

1.6072 Relation: [bi,fi,o,oi,si]

Complement relation.

$$\begin{cases}
] - \infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\
] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \\
] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\
] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1
\end{cases}$$

1.6073 Relation: [bi,fi,o,s]

Complement relation.

$$\begin{cases}
] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\
] - \infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\
] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\
] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1
\end{cases}$$

1.6074 Relation: [bi,fi,o,s,si]

Complement relation.

$$\begin{cases}
] - \infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\
] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\
] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \\
] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1
\end{cases}$$

1.6075 Relation: [bi,fi,o,si]

Complement relation.

$$\begin{cases}
] - \infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\
] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \\
] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\
] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1
\end{cases}$$

1.6076 Relation: [bi,fi,oi]

Complement relation.

$$\begin{cases}
] - \infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\
] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\
] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\
] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1
\end{cases}$$

1.6077 Relation: [bi,fi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - \ell_i + 2, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.6078 Relation: [bi,fi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} + 2\ell_j - 2\ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6079 Relation: [bi,fi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.6080 Relation: [bi,fi,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6081 Relation: [bi,fi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.6082 Relation: [bi,fi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j + 1 \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.6083 Relation: [bi,m]

Complement relation.

$$]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j]$$

1.6084 Relation: [bi,m,mi]

Complement relation.

$$]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1]$$

1.6085 Relation: [bi,m,mi,o]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.6086 Relation: [bi,m,mi,o,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.6087 Relation: [bi,m,mi,o,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.6088 Relation: [bi,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.6089 Relation: [bi,m,mi,o,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.6090 Relation: [bi,m,mi,o,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.6091 Relation: [bi,m,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.6092 **Relation:** [bi,m,mi,o,si]

Complement relation.

$$\begin{cases} [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j, \underline{o}_j + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j - \ell_i + 1, \underline{o}_j - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j - \ell_i, \underline{o}_j - 1] \cup [\overline{o}_j + 1, \underline{o}_j + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.6093 **Relation:** [bi,m,mi,oi]

Complement relation.

$$\begin{cases} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i > \ell_j \end{cases}$$

1.6094 Relation: [bi,m,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, o_j] & \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.6095 **Relation:** [bi,m,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6096 Relation: [bi,m,mi,oi,si]

Complement relation.

$$\begin{cases} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.6097 **Relation:** [bi,m,mi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, o_j + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.6098 Relation: [bi,m,mi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \neq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.6099 Relation: [bi,m,mi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.6100 Relation: [bi,m,o]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.6101 Relation: [bi,m,o,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.6102 Relation: [bi,m,o,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.6103 Relation: [bi,m,o,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 2] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - 2] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.6104 Relation: [bi,m,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6105 **Relation:** [bi,m,o,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.6106 Relation: [bi,m,o,s,si]

Complement relation.

$$\left. \begin{aligned} &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] && \text{if } \ell_i < \ell_j \\ &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] && \text{if } \ell_i = \ell_j \\ &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] && \text{if } \ell_i > \ell_j \end{aligned} \right\}$$

1.6107 **Relation:** [bi,m,o,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.6108 Relation: [bi,m,oi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6109 Relation: [bi,m,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6110 **Relation:** [bi,m,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6111 Relation: [bi,m,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.6112 Relation: [bi,m,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.6113 Relation: [bi,m,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.6114 Relation: [bi,m,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.6115 Relation: [bi,mi]

Complement relation.

$$] - \infty, \underline{o_j} + \ell_j - 1]$$

1.6116 Relation: [bi,mi,o]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} + \ell_j - 1] & \text{if } \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.6117 Relation: [bi,mi,o,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} + \ell_j - 1] & \text{if } \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.6118 Relation: [bi,mi,o,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j}] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.6119 Relation: [bi,mi,o,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.6120 Relation: [bi,mi,o,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.6121 Relation: [bi,mi,o,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j}] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.6122 Relation: [bi,mi,o,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j}] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.6123 Relation: [bi,mi,o,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.6124 Relation: [bi,mi,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.6125 Relation: [bi,mi,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j}] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.6126 Relation: [bi,mi,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j}] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.6127 Relation: [bi,mi,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} + \ell_j - \ell_i] & \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - 1] & \text{if } \ell_i > \ell_j \end{cases}$$

1.6128 Relation: [bi,mi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.6129 Relation: [bi,mi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \neq \ell_j \wedge \ell_j > 1 \end{cases}$$

1.6130 Relation: [bi,mi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.6131 Relation: [bi,o]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j] & \text{if } \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.6132 Relation: [bi,o,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j] & \text{if } \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.6133 Relation: [bi,o,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.6134 Relation: [bi,o,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.6135 Relation: [bi,o,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.6136 Relation: [bi,o,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.6137 Relation: [bi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.6138 Relation: [bi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + 1] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.6139 Relation: [bi,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \underline{\ell_j}] & \text{if } \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6140 Relation: [bi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} + 1] & \text{if } \ell_j = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6141 Relation: [bi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + 1] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.6142 Relation: [bi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \underline{\ell_j}, \underline{o_j} + \underline{\ell_j}] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6143 Relation: [bi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} + \ell_j] & \text{if } \ell_i \geq \ell_j \end{cases}$$

1.6144 Relation: [bi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} + \ell_j] & \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i \neq \ell_j \end{cases}$$

1.6145 Relation: [bi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} + \ell_j] & \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j] & \text{if } \ell_i > \ell_j \end{cases}$$

1.6146 Relation: [d]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \end{cases}$$

1.6147 Relation: [d,di]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.6148 Relation: [d,di,e]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \end{cases}$$

1.6149 Relation: [d,di,e,f]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, +\infty[& \text{if } \ell_i = \ell_j + 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.6150 Relation: [d,di,e,f,fi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.6151 Relation: [d,di,e,f,fi,m]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.6152 Relation: [d,di,e,f,fi,m,mi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.6153 Relation: [d,di,e,f,fi,m,mi,o]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.6154 Relation: [d,di,e,f,fi,m,mi,o,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \end{cases}$$

1.6155 Relation: [d,di,e,f,fi,m,mi,o,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.6156 Relation: [d,di,e,f,fi,m,mi,o,oi,s,si]

Complement relation.

$$]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[$$

1.6157 Relation: [d,di,e,f,fi,m,mi,o,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.6158 Relation: [d,di,e,f,fi,m,mi,o,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.6159 Relation: [d,di,e,f,fi,m,mi,o,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.6160 Relation: [d,di,e,f,fi,m,mi,o,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.6161 Relation: [d,di,e,f,fi,m,mi,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - 2] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.6168 Relation: [d,di,e,f,fi,m,o]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.6169 Relation: [d,di,e,f,fi,m,o,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \ell_j > 1 \end{cases}$$

1.6170 Relation: [d,di,e,f,fi,m,o,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.6171 Relation: [d,di,e,f,fi,m,o,oi,s,si]

Complement relation.

$$] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[$$

1.6172 Relation: [d,di,e,f,fi,m,o,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.6173 Relation: [d,di,e,f,fi,m,o,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.6174 Relation: [d,di,e,f,fi,m,o,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.6175 Relation: [d,di,e,f,fi,m,o,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.6176 Relation: [d,di,e,f,fi,m,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.6177 Relation: [d,di,e,f,fi,m,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.6178 Relation: [d,di,e,f,fi,m,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.6179 Relation: [d,di,e,f,fi,m,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.6180 Relation: [d,di,e,f,fi,m,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.6181 Relation: [d,di,e,f,fi,m,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.6182 Relation: [d,di,e,f,fi,m,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.6183 Relation: [d,di,e,f,fi,mi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.6184 Relation: [d,di,e,f,fi,mi,o]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.6185 Relation: [d,di,e,f,fi,mi,o,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.6186 Relation: [d,di,e,f,fi,mi,o,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.6187 Relation: [d,di,e,f,fi,mi,o,oi,s,si]

Complement relation.

$$]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[$$

1.6188 Relation: [d,di,e,f,fi,mi,o,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.6189 Relation: [d,di,e,f,fi,mi,o,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.6190 Relation: [d,di,e,f,fi,mi,o,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.6191 Relation: [d,di,e,f,fi,mi,o,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.6192 Relation: [d,di,e,f,fi,mi,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.6193 Relation: [d,di,e,f,fi,mi,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.6194 Relation: [d,di,e,f,fi,mi,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}-1] \cup [\overline{o_j}+\ell_j+1, +\infty[& \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j}+\ell_j-\ell_i-1] \cup [\overline{o_j}+\ell_j+1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.6195 Relation: [d,di,e,f,fi,mi,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j}+\ell_j+1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j}+\ell_j-\ell_i-1] \cup [\overline{o_j}+\ell_j+1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.6196 Relation: [d,di,e,f,fi,mi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}-1] \cup [\overline{o_j}+\ell_j+1, +\infty[& \text{if } \ell_i = 1 \\]-\infty, \underline{o_j}-1] \cup [\overline{o_j}+\ell_j-\ell_i+1, \underline{o_j}+\ell_j-1] \cup [\overline{o_j}+\ell_j+1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j}+\ell_j-\ell_i-1] \cup [\overline{o_j}, \underline{o_j}+\ell_j-1] \cup [\overline{o_j}+\ell_j+1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.6197 Relation: [d,di,e,f,fi,mi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}-\ell_i] \cup [\overline{o_j}+\ell_j+1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j}-1] \cup [\overline{o_j}+\ell_j-\ell_i+1, \underline{o_j}+\ell_j-1] \cup [\overline{o_j}+\ell_j+1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j}+\ell_j-\ell_i-1] \cup [\overline{o_j}+1, \underline{o_j}+\ell_j-1] \cup [\overline{o_j}+\ell_j+1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.6198 Relation: [d,di,e,f,fi,mi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j}+\ell_j-\ell_i+1, \underline{o_j}+\ell_j-1] \cup [\overline{o_j}+\ell_j+1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j}] \cup [\overline{o_j}+\ell_j+1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j}-\ell_i] \cup [\overline{o_j}+\ell_j+1, +\infty[& \text{if } \ell_j = 1 \\]-\infty, \underline{o_j}+\ell_j-\ell_i-1] \cup [\overline{o_j}+1, \underline{o_j}+\ell_j-1] \cup [\overline{o_j}+\ell_j+1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.6199 Relation: [d,di,e,f,fi,o]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}-\ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j}+\ell_j-\ell_i+1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j}] \cup [\overline{o_j}+\ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j}-\ell_i] \cup [\overline{o_j}+1, +\infty[& \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j}-\ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.6200 Relation: [d,di,e,f,fi,o,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j}+\ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j}-\ell_i] \cup [\overline{o_j}+\ell_j, +\infty[& \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j}-\ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j}-\ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j}+\ell_j, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.6201 Relation: [d,di,e,f,fi,o,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.6202 Relation: [d,di,e,f,fi,o,oi,s,si]

Complement relation.

$$] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[$$

1.6203 Relation: [d,di,e,f,fi,o,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.6204 Relation: [d,di,e,f,fi,o,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.6205 Relation: [d,di,e,f,fi,o,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.6206 Relation: [d,di,e,f,fi,o,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.6207 Relation: [d,di,e,f,fi,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.6208 Relation: [d,di,e,f,fi,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}-1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j}-\ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.6209 Relation: [d,di,e,f,fi,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}-1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.6210 Relation: [d,di,e,f,fi,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.6211 Relation: [d,di,e,f,fi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}-1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.6212 Relation: [d,di,e,f,fi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}-1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.6213 Relation: [d,di,e,f,fi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.6214 Relation: [d,di,e,f,m]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}-\ell_i-1] \cup [\overline{o_j}-\ell_i+1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j}-\ell_i-1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j}-\ell_i-1] \cup [\overline{o_j}-\ell_i+1, \underline{o_j}-1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j}-\ell_i-1] \cup [\overline{o_j}-\ell_i+1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\]-\infty, \underline{o_j}-\ell_i-1] \cup [\overline{o_j}-\ell_i+1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.6221 Relation: [d,di,e,f,m,mi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.6222 **Relation:** [d,di,e,f,m,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.6223 **Relation:** [d,di,e,f,m,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.6224 **Relation:** [d,di,e,f,m,mi,oi]

Complement relation.

$$\left. \begin{aligned} & [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ & [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ & [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \\ & [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, o_j] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i > \ell_j + 1 \end{aligned} \right\}$$

1.6225 Relation: [d,di,e,f,m,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, o_j] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.6226 Relation: [d,di,e,f,m,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\]-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j - \ell_i + 1, \underline{o}_j - 1] \cup [\overline{o}_j + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \\]-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j - \ell_i + 1, \underline{o}_j + \ell_j - \ell_i] \cup [\overline{o}_j + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.6227 Relation: [d,di,e,f,m,mi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.6228 Relation: [d,di,e,f,m,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.6229 **Relation:** [d,di,e,f,m,mi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6230 **Relation:** [d,di,e,f,m,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.6231 Relation: [d,di,e,f,m,o]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 2\ell_j - 2\ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.6232 Relation: [d,di,e,f,m,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6233 Relation: [d,di,e,f,m,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - 2\ell_i + 2, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6234 Relation: [d,di,e,f,m,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6235 Relation: [d,di,e,f,m,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6236 Relation: [d,di,e,f,m,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.6237 Relation: [d,di,e,f,m,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6238 Relation: [d,di,e,f,m,o,si]

Complement relation.

$$\left. \begin{aligned} &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[&& \text{if } \ell_i < \ell_j \\ &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[&& \text{if } \ell_i = \ell_j \\ &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[&& \text{if } \ell_i > \ell_j \end{aligned} \right\}$$

1.6239 Relation: [d,di,e,f,m,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - 2\ell_i + 3, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, o_j] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6240 Relation: [d,di,e,f,m,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j - 2\ell_i + 2, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\underline{o_j}], +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6241 **Relation:** [d,di,e,f,m,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.6242 Relation: [d,di,e,f,m,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.6243 **Relation:** [d,di,e,f,m,s]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{\sigma_j} - \ell_i - 1] \cup [\overline{\sigma_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \\] -\infty, \underline{\sigma_j} - \ell_i - 1] \cup [\overline{\sigma_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\] -\infty, \underline{\sigma_j} - \ell_i - 1] \cup [\overline{\sigma_j} - \ell_i + 1, \underline{\sigma_j} - 1] \cup [\overline{\sigma_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] -\infty, \underline{\sigma_j} - \ell_i - 1] \cup [\overline{\sigma_j} - \ell_i + 1, \underline{\sigma_j} + \ell_j - \ell_i] \cup [\overline{\sigma_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\] -\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, o_j + \ell_j - \ell_i] \cup [\overline{o_j}, o_j] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} + \ell_i - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.6254 Relation: [d,di,e,f,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.6255 Relation: [d,di,e,f,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.6256 Relation: [d,di,e,f,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.6257 Relation: [d,di,e,f,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.6258 Relation: [d,di,e,f,mi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6259 Relation: [d,di,e,f,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_i - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.6260 Relation: [d,di,e,f,mi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j} + \underline{\ell_j} - 1] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \underline{\ell_i} < \underline{\ell_j} \wedge \underline{\ell_i} > 1 \\ [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \underline{\ell_i} \leq \underline{\ell_j} + 1 \wedge \min(\underline{\ell_i}, \underline{\ell_j}) = 1 \\ [-\infty, \underline{o_j} - \underline{\ell_i} + 1] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \underline{\ell_i} > \underline{\ell_j} + 1 \wedge \underline{\ell_j} = 1 \\ [-\infty, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{\ell_j} - 1] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \underline{\ell_i} > \underline{\ell_j} + 1 \wedge \underline{\ell_j} > 1 \\ [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{\ell_j} - 1] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \underline{\ell_i} \geq \underline{\ell_j} \wedge \underline{\ell_i} \leq \underline{\ell_j} + 1 \wedge \underline{\ell_i} > 1 \wedge \underline{\ell_j} > 1 \end{array} \right.$$

1.6261 Relation: [d,di,e,f,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j}] \cup [\overline{o_j} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j} + \underline{\ell_j} - 1] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i < \underline{\ell_j} \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i \leq \underline{\ell_j} + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{\ell_j} - 1] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i > \underline{\ell_j} + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{\ell_j} - 1] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i \geq \underline{\ell_j} \wedge \ell_i \leq \underline{\ell_j} + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \underline{\ell_i} + 1] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i \neq \underline{\ell_j} \wedge \ell_i \neq \underline{\ell_j} + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.6262 Relation: [d,di,e,f,o]

Complement relation.

$$\left. \begin{array}{l}] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[\\] -\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[\\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[\\] -\infty, +\infty[\\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, +\infty[\\] -\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[\\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, o_j + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[\end{array} \right\} \begin{array}{l} \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ \text{if } \ell_i = \ell_j \\ \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array}$$

1.6263 **Relation:** [d,di,e,f,o,oi]

Complement relation.

$$\left. \begin{array}{l}] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[\\] -\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[\\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[\\] -\infty, +\infty[\\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[\\] -\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[\\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, o_j + \ell_j - \ell_i] \cup [\overline{o_j}, o_j] \cup [\overline{o_j} + \ell_j, +\infty[\end{array} \right\} \begin{array}{l} \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ \text{if } \ell_i = \ell_j \\ \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array}$$

1.6264 Relation: [d,di,e,f,o,oi,s]

Complement relation.

$$\left. \begin{array}{l}] -\infty, +\infty[\\] -\infty, o_j - \ell_i] \cup [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[\\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[\\] -\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[\\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, o_j + \ell_j - \ell_i] \cup [\overline{o_j}, o_j] \cup [\overline{o_j} + \ell_j, +\infty[\end{array} \right\} \begin{array}{l} \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ \text{if } \ell_i \leq \ell_j \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array}$$

1.6265 Relation: [d,di,e,f,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.6266 Relation: [d,di,e,f,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.6267 Relation: [d,di,e,f,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6268 Relation: [d,di,e,f,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.6269 Relation: [d,di,e,f,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.6270 Relation: [d,di,e,f,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6271 Relation: [d,di,e,f,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6272 Relation: [d,di,e,f,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.6273 Relation: [d,di,e,f,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6274 Relation: [d,di,e,f,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, +\infty[& \text{if } \ell_i = \ell_j + 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.6275 Relation: [d,di,e,f,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6276 Relation: [d,di,e,f,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.6277 Relation: [d,di,e,fi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, +\infty[& \text{if } \ell_i = \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.6278 Relation: [d,di,e,fi,m]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.6279 Relation: [d,di,e,fi,m,mi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.6280 Relation: [d,di,e,fi,m,mi,o]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \end{cases}$$

1.6281 Relation: [d,di,e,fi,m,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6282 Relation: [d,di,e,fi,m,mi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6283 Relation: [d,di,e,fi,m,mi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.6284 Relation: [d,di,e,fi,m,mi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.6285 Relation: [d,di,e,fi,m,mi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6286 Relation: [d,di,e,fi,m,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6287 **Relation:** [d,di,e,fi,m,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1[\cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1[\cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1[\cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1[\cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6288 Relation: [d,di,e,fi,m,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty] & \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + 2\ell_j - 2\ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty] & \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty] & \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.6289 Relation: [d,di,e,fi,m,mi,oi,s]

Complement relation.

$$\left. \begin{aligned} &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{aligned} \right\}$$

1.6290 Relation: [d,di,e,fi,m,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6291 Relation: [d,di,e,fi,m,mi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6292 Relation: [d,di,e,fi,m,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.6293 Relation: [d,di,e,fi,m,mi,s,si]

Complement relation.

$$\left. \begin{array}{l}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\end{array} \right\} \begin{array}{l} \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ \text{if } \ell_j = 1 \\ \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array}$$

1.6294 Relation: [d,di,e,fi,m,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6295 **Relation:** [d,di,e,fi,m,o]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \end{cases}$$

1.6296 Relation: [d,di,e,fi,m,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.6297 Relation: [d,di,e,fi,m,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.6298 Relation: [d,di,e,fi,m,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.6299 Relation: [d,di,e,fi,m,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_j + 2, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.6300 Relation: [d,di,e,fi,m,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6301 Relation: [d,di,e,fi,m,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \end{array} \right.$$

1.6302 Relation: [d,di,e,fi,m,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.6308 Relation: [d,di,e,fi,m,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.6309 Relation: [d,di,e,fi,m,si]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6310 Relation: [d,di,e,fi,mi]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] -\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] -\infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\] -\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6311 Relation: [d,di,e,fi,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] -\infty, \underline{o_j} + 2\ell_j - 2\ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.6312 Relation: [d,di,e,fi,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\] -\infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6313 Relation: [d,di,e,fi,mi,o,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.6314 Relation: [d,di,e,fi,mi,o,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.6315 Relation: [d,di,e,fi,mi,o,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + 2\ell_j - 2\ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.6316 Relation: [d,di,e,fi,mi,o,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.6317 Relation: [d,di,e,fi,mi,o,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \end{cases}$$

1.6318 Relation: [d,di,e,fi,mi,o,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} + 2\ell_j - \ell_i - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.6319 Relation: [d,di,e,fi,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} + 2\ell_j - 2\ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6320 Relation: [d,di,e,fi,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6321 Relation: [d,di,e,fi,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.6322 Relation: [d,di,e,fi,mi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} + 2\ell_j - 2\ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6323 Relation: [d,di,e,fi,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6324 Relation: [d,di,e,fi,mi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.6325 Relation: [d,di,e,fi,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6326 Relation: [d,di,e,fi,o]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.6327 Relation: [d,di,e,fi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.6328 Relation: [d,di,e,fi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.6329 Relation: [d,di,e,fi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.6330 Relation: [d,di,e,fi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.6331 Relation: [d,di,e,fi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6332 Relation: [d,di,e,fi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \end{array} \right.$$

1.6333 Relation: [d,di,e,fi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.6334 Relation: [d,di,e,fi,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.6335 Relation: [d,di,e,fi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.6336 Relation: [d,di,e,fi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.6337 Relation: [d,di,e,fi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.6338 Relation: [d,di,e,fi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6339 Relation: [d,di,e,fi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.6340 Relation: [d,di,e,fi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, +\infty[& \text{if } \ell_i = \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.6341 Relation: [d,di,e,m]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_j + 2, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.6342 Relation: [d,di,e,m,mi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \end{array} \right.$$

1.6343 Relation: [d,di,e,m,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 2\ell_j - 2\ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.6344 Relation: [d,di,e,m,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, o_j] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, o_j + \ell_j - \ell_i] \cup [\overline{o_j}, o_j] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.6345 **Relation:** [d,di,e,m,mi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.6346 **Relation:** [d,di,e,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, o_j + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \end{cases}$$

1.6347 Relation: [d,di,e,m,mi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6348 **Relation:** [d,di,e,m,mi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.6349 Relation: [d,di,e,m,mi,o,s,si]

Complement relation.

$$\left. \begin{array}{l} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - 1] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[\\ [-\infty, \underline{o_j} - 2] \cup [\overline{o_j} + 2, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{\ell_j} - 1] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{\ell_j} - 1] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[\end{array} \right\} \quad \begin{array}{l} \text{if } \ell_i < \underline{\ell_j} - 1 \\ \text{if } \ell_i = 1 \wedge \underline{\ell_j} = 1 \\ \text{if } \underline{\ell_i} \leq \underline{\ell_j} \wedge \ell_i \geq \underline{\ell_j} - 1 \wedge \ell_i > 1 \\ \text{if } \ell_i > \underline{\ell_j} \wedge \underline{\ell_j} > 1 \\ \text{if } \underline{\ell_i} \geq \underline{\ell_j} - 1 \wedge \ell_i \neq \underline{\ell_j} \wedge \min(\ell_i, \underline{\ell_j}) = 1 \end{array}$$

1.6350 Relation: [d,di,e,m,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} - 2] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_j + \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.6351 **Relation:** [d,di,e,m,mi,oi]

Complement relation.

$$\left. \begin{array}{l} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j + 1, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j + 1, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - \ell_j + \ell_i - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[\end{array} \right\} \quad \begin{array}{l} \text{if } \ell_i < \ell_j - 1 \\ \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ \text{if } \ell_i = \ell_j - 1 \\ \text{if } \ell_i > \ell_j + 1 \\ \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array}$$

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

Complement relation.

$$\left. \begin{aligned} & [-\infty, \frac{\overline{o_j} - \ell_i - 1}{2}] \cup [\frac{\overline{o_j}}{2}, o_j] \cup [\frac{\overline{o_j}}{2} + \ell_j - \ell_i, +\infty[&& \text{if } \ell_i < \ell_j - 1 \\ & [-\infty, \frac{\overline{o_j} - \ell_i - 1}{2}] \cup [\frac{\overline{o_j}}{2}, +\infty[&& \text{if } \ell_i = \ell_j - 1 \\ & [-\infty, \frac{\overline{o_j} - \ell_i - 1}{2}] \cup [\frac{\overline{o_j}}{2} + \ell_j - \ell_i, o_j + \ell_j - \ell_i] \cup [\frac{\overline{o_j}}{2}, +\infty[&& \text{if } \ell_i > \ell_j + 1 \\ & [-\infty, \frac{\overline{o_j} - \ell_i - 1}{2}] \cup [\frac{\overline{o_j}}{2} + 2\ell_j - 2\ell_i + 1, +\infty[&& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{aligned} \right\}$$

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j} + 1] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\underline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

Complement relation.

$\left\{ \begin{array}{l}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[\\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[\\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[\\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[\\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[\\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[\\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[\end{array} \right.$	$\left\{ \begin{array}{l} \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$
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Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \overline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.6362 Relation: [d,di,e,m,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6363 Relation: [d,di,e,m,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.6364 Relation: [d,di,e,m,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6365 Relation: [d,di,e,m,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_j + \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6366 Relation: [d,di,e,m,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_j + \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_j - 2\ell_i + 4, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.6372 **Relation:** [d,di,e,m,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_j + 2, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.6373 **Relation:** [d,di,e,mi]

Complement relation.

$$\left. \begin{aligned} &] -\infty, o_j] \cup [\overline{o_j} + \ell_j - \ell_i, o_j + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i < \ell_j - 1 \\ &] -\infty, o_j - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ &] -\infty, o_j - \ell_j + \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ &] -\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, o_j + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i > \ell_j + 1 \\ &] -\infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \end{aligned} \right\}$$

1.6374 Relation: [d,di,e,mi,o]

Complement relation.

$$\left. \begin{aligned} &] -\infty, o_j - \ell_i] \cup [\overline{o_j}, o_j] \cup [\overline{o_j} + \ell_j - \ell_i, o_j + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ &] -\infty, o_j - \ell_i] \cup [\overline{o_j}, \overline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ &] -\infty, o_j - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, o_j + \ell_j - \ell_i] \cup [\overline{o_j}, \overline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ &] -\infty, o_j - \ell_i] \cup [\overline{o_j} + 2\ell_j - 2\ell_i + 1, o_j + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\ &] -\infty, \overline{o_j} + 2\ell_j + \ell_i - 4] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ &] -\infty, \overline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j - 1, o_j + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{aligned} \right\}$$

1.6375 Relation: [d,di,e,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \underline{\ell_j} - \ell_i, \underline{o_j} + \underline{\ell_j} - \ell_i] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i < \underline{\ell_j} - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i = \underline{\ell_j} \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i = \underline{\ell_j} + 1 \wedge \underline{\ell_j} > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i = \underline{\ell_j} - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \underline{\ell_j} - \ell_i, \underline{o_j} + \underline{\ell_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i > \underline{\ell_j} + 1 \wedge \underline{\ell_j} > 1 \\]-\infty, \underline{o_j} + \underline{\ell_j} - 1] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i \geq \underline{\ell_j} - 1 \wedge \ell_i \leq \underline{\ell_j} + 1 \wedge \ell_i \neq \underline{\ell_j} \wedge \min(\ell_i, \underline{\ell_j}) = 1 \\]-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \underline{\ell_j} - 1, \underline{o_j} + \underline{\ell_j} - 1] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i \neq \underline{\ell_j} - 1 \wedge \ell_i \neq \underline{\ell_j} \wedge \ell_i \neq \underline{\ell_j} + 1 \wedge \min(\ell_i, \underline{\ell_j}) = 1 \end{array} \right.$$

1.6376 Relation: [d,di,e,mi,o,oi,s]

Complement relation.

$$\left. \begin{array}{l}] -\infty, \underline{o_j} - \ell_j] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\] -\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\] -\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\] -\infty, \underline{o_j} - \ell_j] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[\end{array} \right\} \begin{array}{l} \text{if } \ell_i < \ell_j \\ \text{if } \ell_i = \ell_j \\ \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array}$$

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, o_j + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \ell_j > 1 \end{array} \right.$$

Complement relation.

$$\left. \begin{array}{l} [-\infty, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[\\ [-\infty, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j + 1, +\infty[\\ [-\infty, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j + 1, +\infty[\\ [-\infty, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j + 1, +\infty[\\ [-\infty, \underline{o_j} - 1] \cup [\underline{o_j} + 2, +\infty[\\ [-\infty, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j + 1, +\infty[\\ [-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j + 1, +\infty[\end{array} \right\} \quad \begin{array}{l} \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array}$$

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_j + \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

Complement relation.

$$\left. \begin{aligned} & [-\infty, \underline{o_j}] \cup [\overline{o_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - 1] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ & [-\infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - 1] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ & [-\infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} - \underline{\ell_j} + \underline{\ell_i} + 1, \underline{o_j} + \underline{\ell_j} - 1] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \underline{\ell_i} \geq \ell_j - 1 \wedge \ell_i > 1 \\ & [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \underline{\ell_j} = 1 \\ & [-\infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{\ell_j} - 1] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \underline{\ell_j} > 1 \\ & [-\infty, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \underline{\ell_i} \neq \underline{\ell_j} \wedge \ell_i \neq \underline{\ell_j} + 1 \wedge \min(\ell_i, \underline{\ell_j}) = 1 \end{aligned} \right\}$$

1.6382 Relation: [d,di,e,mi,oi]

Complement relation.

$$\begin{cases}] -\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] -\infty, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\] -\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] -\infty, \underline{o_j} - \ell_j + \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.6383 Relation: [d,di,e,mi,oi,s]

Complement relation.

$$\begin{cases}] -\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] -\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] -\infty, \underline{o_j} - \ell_j + \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.6384 Relation: [d,di,e,mi,oi,s,si]

Complement relation.

$$\begin{cases}] -\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] -\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\] -\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.6385 Relation: [d,di,e,mi,oi,si]

Complement relation.

$$\begin{cases}] -\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] -\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \\] -\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \end{cases}$$

1.6386 Relation: [d,di,e,mi,s]

Complement relation.

$$\begin{cases}] -\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] -\infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - \ell_j + \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.6387 Relation: [d,di,e,mi,s,si]

Complement relation.

$$\begin{cases}] -\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] -\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.6388 Relation: [d,di,e,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6389 Relation: [d,di,e,o]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.6390 Relation: [d,di,e,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.6391 Relation: [d,di,e,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6392 **Relation:** [d,di,e,o,oi,s,si]

Complement relation.

$$\left. \begin{array}{l}] -\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - 1, +\infty[\\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[\\] -\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + 1, +\infty[\\] -\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[\\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[\end{array} \right\} \begin{array}{l} \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ \text{if } \ell_i \neq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array}$$

1.6393 **Relation:** [d,di,e,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] -\infty, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.6394 Relation: [d,di,e,o,s]

Complement relation.

$$\left. \begin{array}{l}] -\infty, +\infty[\\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[\\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[\\] -\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[\\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[\end{array} \right\} \begin{array}{l} \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array}$$

1.6395 **Relation:** [d,di,e,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.6396 Relation: [d,di,e,o,si]

Complement relation.

$$\left. \begin{array}{l}] -\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[\\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[\\] -\infty, +\infty[\\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - \ell_j + \ell_i + 1, +\infty[\\] -\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[\\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[\\] -\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + 1, +\infty[\end{array} \right\} \begin{array}{l} \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array}$$

1.6397 Relation: [d,di,e,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.6398 Relation: [d,di,e,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_j + \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6399 Relation: [d,di,e,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.6400 Relation: [d,di,e,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.6401 Relation: [d,di,e,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, +\infty[& \text{if } \ell_i = \ell_j + 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.6402 Relation: [d,di,e,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.6403 Relation: [d,di,e,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, +\infty[& \text{if } \ell_i = \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.6404 Relation: [d,di,f]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.6405 Relation: [d,di,f,fi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.6406 Relation: [d,di,f,fi,m]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.6407 Relation: [d,di,f,fi,m,mi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.6408 Relation: [d,di,f,fi,m,mi,o]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.6409 Relation: [d,di,f,fi,m,mi,o,oi]

Complement relation.

$$] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[$$

1.6410 Relation: [d,di,f,fi,m,mi,o,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.6411 Relation: [d,di,f,fi,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \end{cases}$$

1.6412 Relation: [d,di,f,fi,m,mi,o,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.6413 Relation: [d,di,f,fi,m,mi,o,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.6414 Relation: [d,di,f,fi,m,mi,o,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.6415 **Relation:** [d,di,f,fi,m,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.6416 Relation: [d,di,f,fi,m,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.6417 **Relation:** [d,di,f,fi,m,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - 2] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + 2, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.6418 Relation: [d,di,f,fi,m,mi,oi,s,si]

Complement relation.

$$\left. \begin{aligned} & [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j - \ell_i + 1, \underline{o}_j - 1] \cup [\overline{o}_j + \ell_j + 1, +\infty[&& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ & [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j - \ell_i + 1, \underline{o}_j] \cup [\overline{o}_j + \ell_j + 1, +\infty[&& \text{if } \ell_i = \ell_j \\ & [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j - \ell_i + 1, \underline{o}_j + \ell_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j + 1, +\infty[&& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ & [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j + 1, +\infty[&& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{aligned} \right\}$$

1.6419 **Relation:** [d,di,f,fi,m,mi,oi,si]

Complement relation.

$$\left. \begin{aligned} &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i \leq \ell_j \\ &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{aligned} \right\}$$

1.6420 **Relation:** [d,di,f,fi,m,mi,s]

Complement relation.

$$\left. \begin{aligned} & [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ & [-\infty, \underline{o_j} - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ & [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i = \ell_j \\ & [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + 2, +\infty[&& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ & [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{aligned} \right\}$$

1.6421 Relation: [d,di,f,fi,m,mi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.6422 Relation: [d,di,f,fi,m,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.6423 Relation: [d,di,f,fi,m,o]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.6424 Relation: [d,di,f,fi,m,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_j > 1 \end{array} \right.$$

1.6425 Relation: [d,di,f,fi,m,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6426 Relation: [d,di,f,fi,m,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \neq \ell_j \end{array} \right.$$

1.6427 Relation: [d,di,f,fi,m,o,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.6428 Relation: [d,di,f,fi,m,o,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.6429 Relation: [d,di,f,fi,m,o,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.6430 Relation: [d,di,f,fi,m,o,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.6431 Relation: [d,di,f,fi,m,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.6432 Relation: [d,di,f,fi,m,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.6433 Relation: [d,di,f,fi,m,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.6434 Relation: [d,di,f,fi,m,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.6435 **Relation:** [d,di,f,fi,m,s]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - 2] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.6436 Relation: [d,di,f,fi,m,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.6437 Relation: [d,di,f,fi,m,si]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, o_j + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.6438 Relation: [d,di,f,fi,mi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j}] \cup [\overline{o_j} + j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [-\infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6439 Relation: [d,di,f,fi,mi,o]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.6440 Relation: [d,di,f,fi,mi,o,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \end{cases}$$

1.6441 Relation: [d,di,f,fi,mi,o,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.6442 Relation: [d,di,f,fi,mi,o,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \end{cases}$$

1.6443 Relation: [d,di,f,fi,mi,o,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.6444 Relation: [d,di,f,fi,mi,o,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.6445 Relation: [d,di,f,fi,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.6446 Relation: [d,di,f,fi,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.6447 Relation: [d,di,f,fi,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6448 Relation: [d,di,f,fi,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6449 Relation: [d,di,f,fi,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6450 Relation: [d,di,f,fi,mi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6451 Relation: [d,di,f,fi,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6452 Relation: [d,di,f,fi,mi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.6453 Relation: [d,di,f,fi,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.6454 Relation: [d,di,f,fi,o]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.6455 Relation: [d,di,f,fi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6456 Relation: [d,di,f,fi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6457 Relation: [d,di,f,fi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \neq \ell_j \end{array} \right.$$

1.6458 Relation: [d,di,f,fi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6459 Relation: [d,di,f,fi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.6460 Relation: [d,di,f,fi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6461 Relation: [d,di,f,fi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6462 Relation: [d,di,f,fi,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.6463 Relation: [d,di,f,fi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.6464 Relation: [d,di,f,fi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6465 Relation: [d,di,f,fi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6466 Relation: [d,di,f,fi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6467 Relation: [d,di,f,fi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6468 Relation: [d,di,f,fi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6469 Relation: [d,di,f,m]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.6470 **Relation:** [d,di,f,m,mi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6471 Relation: [d,di,f,m,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6472 **Relation:** [d,di,f,m,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i, o_j + \ell_j - \ell_i] \cup [\overline{o_j}, o_j] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.6473 Relation: [d,di,f,m,mi,o,oi,s]

Complement relation.

$$\left. \begin{array}{l}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[\end{array} \right\} \begin{array}{l} \text{if } \ell_i < \ell_j \\ \text{if } \ell_i > \ell_j + 1 \\ \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array}$$

1.6474 **Relation:** [d,di,f,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.6475 **Relation:** [d,di,f,m,mi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_j - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} - \ell_j - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6476 Relation: [d,di,f,m,mi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.6477 **Relation:** [d,di,f,m,mi,o,s,si]

Complement relation.

$$\left. \begin{aligned} &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i = \ell_j \\ &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{aligned} \right\}$$

1.6478 Relation: [d,di,f,m,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.6479 **Relation:** [d,di,f,m,mi,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \\]-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, o_j + \ell_j - \ell_i] \cup [\overline{o_j}, o_j] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.6480 Relation: [d,di,f,m,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.6481 Relation: [d,di,f,m,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \neq \ell_j + 1 \end{array} \right.$$

1.6482 **Relation:** [d,di,f,m,mi,oi,si]

Complement relation.

$$\begin{aligned} & \left] -\infty, \underline{o}_j - \ell_i - 1 \right] \cup \left[\overline{o}_j - \ell_i + 1, \underline{o}_j \right] \cup \left[\overline{o}_j + \ell_j + 1, +\infty[\quad \text{if } \ell_i \leq \ell_j \\ & \left] -\infty, \underline{o}_j - \ell_i - 1 \right] \cup \left[\overline{o}_j - \ell_i + 1, \underline{o}_j + \ell_j - \ell_i \right] \cup \left[\overline{o}_j + \ell_j + 1, +\infty[\quad \text{if } \ell_i > \ell_j \end{aligned}$$

1.6483 Relation: [d,di,f,m,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.6484 **Relation:** [d,di,f,m,mi,s,si]

Complement relation.

$$\left. \begin{array}{l} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\end{array} \right\} \begin{array}{l} \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ \text{if } \ell_i = \ell_j \\ \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array}$$

1.6485 Relation: [d,di,f,m,mi,si]

Complement relation.

$$\left\{ \begin{array}{l} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\quad \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\quad \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\quad \text{if } \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\quad \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.6486 Relation: [d,di,f,m,o]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.6487 Relation: [d,di,f,m,o,oi]

Complement relation.

$$\left. \begin{array}{l}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[\\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[\\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, +\infty[\\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[\\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \overline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[\end{array} \right\} \begin{array}{l} \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array}$$

1.6488 Relation: [d,di,f,m,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6489 Relation: [d,di,f,m,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.6490 Relation: [d,di,f,m,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6491 Relation: [d,di,f,m,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.6492 Relation: [d,di,f,m,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6493 Relation: [d,di,f,m,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6500 Relation: [d,di,f,m,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6501 Relation: [d,di,f,mi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j}] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [-\infty, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6502 Relation: [d,di,f,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6503 Relation: [d,di,f,mi,o,oi]

Complement relation.

$$\left. \begin{array}{l} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\ [-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\ [-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[\end{array} \right\} \begin{array}{l} \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array}$$

1.6504 Relation: [d,di,f,mi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6505 **Relation:** [d,di,f,mi,o,oi,s,si]

Complement relation.

$$\left. \begin{aligned} &] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i < \ell_j \\ &] -\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 2, +\infty[&& \text{if } \ell_j = 1 \\ &] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{aligned} \right\}$$

1.6506 Relation: [d,di,f,mi,o,oi,si]

Complement relation.

$$\left. \begin{aligned} &]-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \min(\ell_i, \ell_j) = 1 \\ &]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ &]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{aligned} \right\}$$

1.6507 Relation: [d,di,f,mi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6508 Relation: [d,di,f,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.6509 Relation: [d,di,f,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i + 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.6510 Relation: [d,di,f,mi,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.6511 Relation: [d,di,f,mi,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.6512 Relation: [d,di,f,mi,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \neq \ell_j + 1 \end{cases}$$

1.6513 Relation: [d,di,f,mi,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.6514 Relation: [d,di,f,mi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.6515 Relation: [d,di,f,mi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{cases}$$

1.6516 Relation: [d,di,f,mi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.6517 Relation: [d,di,f,o]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6518 Relation: [d,di,f,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6519 Relation: [d,di,f,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6520 Relation: [d,di,f,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6521 Relation: [d,di,f,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.6522 Relation: [d,di,f,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6523 Relation: [d,di,f,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.6524 Relation: [d,di,f,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.6525 Relation: [d,di,f,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6526 Relation: [d,di,f,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6527 Relation: [d,di,f,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.6528 Relation: [d,di,f,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6529 Relation: [d,di,f,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.6530 Relation: [d,di,f,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6531 Relation: [d,di,f,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6532 Relation: [d,di,fi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6533 Relation: [d,di,fi,m]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.6534 Relation: [d,di,fi,m,mi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.6535 Relation: [d,di,fi,m,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \end{array} \right.$$

1.6536 Relation: [d,di,fi,m,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.6537 Relation: [d,di,fi,m,mi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.6538 Relation: [d,di,fi,m,mi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6539 Relation: [d,di,fi,m,mi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6540 Relation: [d,di,fi,m,mi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.6547 Relation: [d,di,fi,m,mi,s]

Complement relation.

$$\left\{ \begin{array}{l} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[\quad \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[\quad \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[\quad \text{if } \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[\quad \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.6548 **Relation:** [d,di,fi,m,mi,s,si]

Complement relation.

$$\left. \begin{array}{l} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\end{array} \right\} \quad \begin{array}{l} \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \text{if } \ell_i = 1 \\ \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array}$$

1.6549 Relation: [d,di,fi,m,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.6550 **Relation:** [d,di,fi,m,o]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \end{cases}$$

1.6551 Relation: [d,di,fi,m,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.6552 **Relation:** [d,di,fi,m,o,oi,s]

Complement relation.

$$\left. \begin{array}{l}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[\\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - 1, +\infty[\\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, o_i] \cup [\overline{o_j} + \ell_j, +\infty[\end{array} \right\} \begin{array}{l} \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \text{if } \min(\ell_i, \ell_j) = 1 \\ \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array}$$

1.6553 Relation: [d,di,fi,m,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 2] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6554 Relation: [d,di,fi,m,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6555 Relation: [d,di,fi,m,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.6556 Relation: [d,di,fi,m,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \neq \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \end{array} \right.$$

1.6557 Relation: [d,di,fi,m,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6558 Relation: [d,di,fi,m,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.6559 Relation: [d,di,fi,m,oi,s]

Complement relation.

$$\left. \begin{array}{l}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[\\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[\\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - 1, +\infty[\\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[\end{array} \right\} \begin{array}{l} \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ \text{if } \min(\ell_i, \ell_j) = 1 \\ \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array}$$

1.6560 Relation: [d,di,fi,m,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - 2] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i = 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + 2\ell_j - 2\ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6561 Relation: [d,di,fi,m,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.6562 Relation: [d,di,fi,m,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.6563 **Relation:** [d,di,fi,m,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - 2] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.6564 Relation: [d,di,fi,m,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.6565 Relation: [d,di,fi,mi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6566 Relation: [d,di,fi,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \end{array} \right.$$

1.6567 Relation: [d,di,fi,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.6568 Relation: [d,di,fi,mi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.6569 Relation: [d,di,fi,mi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6570 Relation: [d,di,fi,mi,o,oi,si]

Complement relation.

$$\left. \begin{array}{ll} [-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right\}$$

1.6571 Relation: [d,di,fi,mi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.6572 Relation: [d,di,fi,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \neq \ell_j - 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.6573 **Relation:** [d,di,fi,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.6574 Relation: [d,di,fi,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o}_j] \cup [\overline{o}_j + \ell_j - \ell_i, \underline{o}_j + \ell_j - \ell_i] \cup [\overline{o}_j + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o}_j + \ell_j - \ell_i] \cup [\overline{o}_j + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [-\infty, \underline{o}_j + \ell_j - \ell_i - 1] \cup [\overline{o}_j, \underline{o}_j] \cup [\overline{o}_j + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6575 **Relation:** [d,di,fi,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, o_j] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6576 Relation: [d,di,fi,mi,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.6577 Relation: [d,di,fi,mi,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.6578 Relation: [d,di,fi,mi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.6579 Relation: [d,di,fi,mi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.6580 Relation: [d,di,fi,mi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.6581 Relation: [d,di,fi,o]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \end{cases}$$

1.6582 Relation: [d,di,fi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6583 Relation: [d,di,fi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.6584 Relation: [d,di,fi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6585 Relation: [d,di,fi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6586 Relation: [d,di,fi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.6587 Relation: [d,di,fi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \neq \ell_j - 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \end{array} \right.$$

1.6588 Relation: [d,di,fi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6589 Relation: [d,di,fi,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.6590 Relation: [d,di,fi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.6591 Relation: [d,di,fi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6592 Relation: [d,di,fi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6593 Relation: [d,di,fi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.6594 Relation: [d,di,fi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.6595 Relation: [d,di,fi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.6596 Relation: [d,di,m]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.6597 Relation: [d,di,m,mi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.6598 Relation: [d,di,m,mi,o]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.6599 Relation: [d,di,m,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j} + 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.6600 Relation: [d,di,m,mi,o,oi,s]

Complement relation.

$$\left. \begin{aligned} &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i = \ell_j + 1 \\ &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i \leq \ell_j \\ &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, o_j] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i > \ell_j + 1 \end{aligned} \right\}$$

1.6601 Relation: [d,di,m,mi,o,oi,s,si]

Complement relation.

$$]-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, o_j + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[$$

1.6602 Relation: [d,di,m,mi,o,oi,si]

Complement relation.

$$\left. \begin{aligned} &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i < \ell_j - 1 \\ &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i = \ell_j - 1 \\ &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i \geq \ell_j \end{aligned} \right\}$$

1.6603 Relation: [d,di,m,mi,o,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.6604 Relation: [d,di,m,mi,o,s,si]

Complement relation.

$$\left. \begin{aligned} &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i \leq \ell_j \\ &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{aligned} \right\}$$

1.6605 Relation: [d,di,m,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.6606 Relation: [d,di,m,mi,oi]

Complement relation.

$$\left. \begin{aligned} &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{aligned} \right\}$$

1.6607 Relation: [d,di,m,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.6608 Relation: [d,di,m,mi,oi,s,si]

Complement relation.

$$\left. \begin{aligned} & [-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, o_j - 1] \cup [\overline{o_j} + \ell_j - \ell_i, o_j + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ & [-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, o_j + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ & [-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, o_j + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{aligned} \right\}$$

1.6609 Relation: [d,di,m,mi,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \end{cases}$$

1.6610 Relation: [d,di,m,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6611 Relation: [d,di,m,mi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6612 Relation: [d,di,m,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.6613 Relation: [d,di,m,o]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.6614 Relation: [d,di,m,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.6615 **Relation:** [d,di,m,o,oi,s]

Complement relation.

$$\left. \begin{array}{l} [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j - 1, \underline{o}_j] \cup [\overline{o}_j + \ell_j, +\infty[\\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j - \ell_i, \underline{o}_j + \ell_j - \ell_i] \cup [\overline{o}_j + \ell_j, +\infty[\\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j - \ell_i, +\infty[\\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j - \ell_i + 1, \underline{o}_j - \ell_i + 1] \cup [\overline{o}_j, +\infty[\\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j - \ell_i, \underline{o}_j + \ell_j - \ell_i] \cup [\overline{o}_j, \underline{o}_j] \cup [\overline{o}_j + \ell_j, +\infty[\end{array} \right\} \quad \begin{array}{l} \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array}$$

1.6616 Relation: [d,di,m,o,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, o_j + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > 1 \end{cases}$$

1.6617 Relation: [d,di,m,o,oi,si]

Complement relation.

$$\left. \begin{array}{l} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j - 1, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j} + 1] \cup [\underline{o_j} + \ell_j, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j, +\infty[\end{array} \right\} \begin{array}{l} \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array}$$

1.6618 Relation: [d,di,m,o,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, o_j + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.6619 Relation: [d,di,m,o,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, o_j + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.6620 **Relation:** [d,di,m,o,si]

Complement relation.

$$\left. \begin{aligned} &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[&& \text{if } \ell_i < \ell_j - 1 \\ &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[&& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, o_j + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[&& \text{if } \ell_i > \ell_j \end{aligned} \right\}$$

1.6621 Relation: [d,di,m,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + 1] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\underline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.6622 **Relation:** [d,di,m,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6623 **Relation:** [d,di,m,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.6624 Relation: [d,di,m,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \end{array} \right.$$

1.6625 Relation: [d,di,m,s]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i = 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.6626 Relation: [d,di,m,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.6627 **Relation:** [d,di,m,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6628 Relation: [d,di,mi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [-\infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.6629 **Relation:** [d,di,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\underline{o_j} - 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o_j} - \ell_i + 1] \cup [\underline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.6630 **Relation:** [d,di,mi,o,oi]

Complement relation.

$$\left. \begin{aligned} &] -\infty, o_j - \ell_i] \cup [\overline{o_j}, o_j] \cup [\overline{o_j} + \ell_j - \ell_i, o_j + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ &] -\infty, o_j - \ell_i] \cup [\overline{o_j}, o_j + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ &] -\infty, o_j - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, o_j + \ell_j - \ell_i] \cup [\overline{o_j}, o_j] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ &] -\infty, o_j - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, o_j] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\ &] -\infty, o_j + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ &] -\infty, o_j - \ell_i + 1] \cup [\overline{o_j} + \ell_j - 1, o_j + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{aligned} \right\}$$

1.6631 Relation: [d,di,mi,o,oi,s]

Complement relation.

$$\left. \begin{array}{l}]-\infty, o_j - \ell_i] \cup [\overline{o_j} - 1, o_j] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\]-\infty, o_j - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, o_j + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\]-\infty, o_j] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\]-\infty, o_j - \ell_i + 1] \cup [\overline{o_j}, o_j] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\]-\infty, o_j - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, o_j + \ell_j - \ell_i] \cup [\overline{o_j}, o_j] \cup [\overline{o_j} + \ell_j + 1, +\infty[\end{array} \right\} \begin{array}{l} \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array}$$

1.6632 Relation: [d,di,mi,o,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j > 1 \end{cases}$$

1.6633 Relation: [d,di,mi,o,oi,si]

Complement relation.

$$\left. \begin{aligned} & [-\infty, o_j] \cup [\overline{o_j} + \ell_j - 1, o_j + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ & [-\infty, o_j - \ell_i] \cup [\overline{o_j}, o_j] \cup [\overline{o_j} + \ell_j - \ell_i, o_j + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ & [-\infty, o_j - \ell_i] \cup [\overline{o_j}, \overline{o_j} + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ & [-\infty, o_j - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, o_j + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ & [-\infty, o_j + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{aligned} \right\}$$

1.6634 Relation: [d,di,mi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6635 Relation: [d,di,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \underline{o_i}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.6636 Relation: [d,di,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.6637 Relation: [d,di,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.6638 Relation: [d,di,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.6639 Relation: [d,di,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.6640 Relation: [d,di,mi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \end{array} \right.$$

1.6641 Relation: [d,di,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.6642 Relation: [d,di,mi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - 1] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} + \underline{\ell_j} - 1] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [-\infty, \underline{o_j} - \underline{\ell_i} + 1] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{\ell_j} - 1] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{\ell_j} - 1] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.6643 **Relation:** [d,di,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\ [-\infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.6644 Relation: [d,di,o]

Complement relation.

$$\left\{ \begin{array}{ll} -\infty, \underline{o_j} - \ell_i \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ -\infty, \underline{o_j} - \ell_i \cup [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ -\infty, \underline{o_j} - \ell_i \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ -\infty, \underline{o_j} - \ell_i \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ -\infty, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ -\infty, o_j - \ell_i + 1 \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.6645 Relation: [d,di,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\] -\infty, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\] -\infty, o_j - \ell_i + 1] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.6646 Relation: [d,di,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \underline{e_j} - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \underline{e_j}, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \underline{e_j} - \ell_i, \underline{o_j} + \underline{e_j} - \ell_i] \cup [\overline{o_j} + \underline{e_j}, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] -\infty, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \underline{e_j} - \ell_i, \underline{o_j} + \underline{e_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \underline{e_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6647 Relation: [d,di,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.6648 Relation: [d,di,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6649 Relation: [d,di,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6650 Relation: [d,di,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \neq \ell_j - 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.6651 Relation: [d,di,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.6652 Relation: [d,di,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\] - \infty, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.6653 Relation: [d,di,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6654 Relation: [d,di,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.6655 Relation: [d,di,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \end{array} \right.$$

1.6656 Relation: [d,di,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.6657 Relation: [d,di,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.6658 Relation: [d,di,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.6659 Relation: [d,e]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \end{cases}$$

1.6660 Relation: [d,e,f]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.6661 Relation: [d,e,f,fi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.6662 Relation: [d,e,f,fi,m]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.6663 Relation: [d,e,f,fi,m,mi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

Complement relation.

$$\left\{ \begin{array}{l}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, o_j] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\quad \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\quad \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, o_j] \cup [\overline{o_j} + \ell_j + 1, +\infty[\quad \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, o_j] \cup [\overline{o_j} + \ell_j + 1, +\infty[\quad \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\quad \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

Complement relation.

$$\left. \begin{aligned} &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, o_j] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i < \ell_j \\ &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i = \ell_j \\ &]-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, o_j] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i > \ell_j \end{aligned} \right\}$$

Complement relation.

$$\begin{cases}]-\infty, \overline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\]-\infty, \overline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \overline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \end{cases}$$

Complement relation.

$$\left. \begin{array}{l}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\end{array} \right\} \begin{array}{l} \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array}$$

1.6676 Relation: [d,e,f,fi,m,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.6677 Relation: [d,e,f,fi,m,mi,s,si]

Complement relation.

$$\left. \begin{array}{l}]-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, o_j + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\]-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, o_j - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\]-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\]-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\]-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, o_j + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, o_j - 1] \cup [\overline{o_j} + 1, o_j + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\end{array} \right\} \begin{array}{l} \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array}$$

1.6678 Relation: [d,e,f,fi,m,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6679 Relation: [d,e,f,fi,m,o]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.6680 Relation: [d,e,f,fi,m,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6681 Relation: [d,e,f,fi,m,o,oi,s]

Complement relation.

$$\left. \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right\}$$

1.6682 Relation: [d,e,f,fi,m,o,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.6683 Relation: [d,e,f,fi,m,o,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.6684 Relation: [d,e,f,fi,m,o,s]

Complement relation.

$$] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[$$

1.6685 Relation: [d,e,f,fi,m,o,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.6686 Relation: [d,e,f,fi,m,o,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.6687 Relation: [d,e,f,fi,m,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.6688 Relation: [d,e,f,fi,m,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.6689 **Relation:** [d,e,f,fi,m,oi,s,si]

Complement relation.

$$\left. \begin{array}{l}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[\\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[\\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[\\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[\\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[\end{array} \right\} \begin{array}{l} \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array}$$

1.6690 Relation: [d,e,f,fi,m,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6691 Relation: [d,e,f,fi,m,s]

Complement relation.

$$\left. \begin{aligned} &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[&& \text{if } \min(\ell_i, \ell_j) = 1 \\ &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[&& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[&& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{aligned} \right\}$$

1.6692 Relation: [d,e,f,fi,m,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6693 **Relation:** [d,e,f,fi,m,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6694 Relation: [d,e,f,fi,mi]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] -\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.6695 Relation: [d,e,f,fi,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.6696 Relation: [d,e,f,fi,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.6697 Relation: [d,e,f,fi,mi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6698 Relation: [d,e,f,fi,mi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.6699 Relation: [d,e,f,fi,mi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] -\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.6700 Relation: [d,e,f,fi,mi,o,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \end{cases}$$

1.6701 Relation: [d,e,f,fi,mi,o,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.6702 Relation: [d,e,f,fi,mi,o,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.6703 Relation: [d,e,f,fi,mi,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.6704 Relation: [d,e,f,fi,mi,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.6705 Relation: [d,e,f,fi,mi,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.6706 Relation: [d,e,f,fi,mi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.6707 Relation: [d,e,f,fi,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, o_j + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6708 **Relation:** [d,e,f,fi,mi,s,si]

Complement relation.

$$\left. \begin{aligned} & [-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ & [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ & [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ & [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ & [-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{aligned} \right\}$$

1.6709 Relation: [d,e,f,fi,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6710 Relation: [d,e,f,fi,o]

Complement relation.

$$\left. \begin{aligned} &] - \infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[&& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ &] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[&& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ &] - \infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[&& \text{if } \ell_i \geq \ell_j \end{aligned} \right\}$$

1.6711 Relation: [d,e,f,fi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\] -\infty, \underline{o_j} - 2\ell_i + 2] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6712 Relation: [d,e,f,fi,o,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.6713 Relation: [d,e,f,fi,o,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.6714 Relation: [d,e,f,fi,o,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.6715 Relation: [d,e,f,fi,o,s]

Complement relation.

$$] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[$$

1.6716 Relation: [d,e,f,fi,o,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.6717 Relation: [d,e,f,fi,o,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.6718 Relation: [d,e,f,fi,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.6719 Relation: [d,e,f,fi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.6720 Relation: [d,e,f,fi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.6721 Relation: [d,e,f,fi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.6722 Relation: [d,e,f,fi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6723 Relation: [d,e,f,fi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.6724 Relation: [d,e,f,fi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.6725 Relation: [d,e,f,m]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.6726 Relation: [d,e,f,m,mi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.6727 Relation: [d,e,f,m,mi,o]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 2] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.6728 Relation: [d,e,f,m,mi,o,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.6729 Relation: [d,e,f,m,mi,o,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.6730 **Relation:** [d,e,f,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.6731 **Relation:** [d,e,f,m,mi,o,oi,si]

Complement relation.

$$\left. \begin{aligned} &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i < \ell_j \\ &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i = \ell_j \\ &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i > \ell_j \end{aligned} \right\}$$

1.6732 **Relation:** [d,e,f,m,mi,o,s]

Complement relation.

$$\left. \begin{aligned} &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i = 1 \\ &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i > \ell_j \end{aligned} \right\}$$

1.6733 **Relation:** [d,e,f,m,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.6734 Relation: [d,e,f,m,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.6735 Relation: [d,e,f,m,mi,oi]

Complement relation.

$$\left. \begin{aligned} &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i \neq \ell_j \end{aligned} \right\}$$

1.6736 Relation: [d,e,f,m,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6737 **Relation:** [d,e,f,m,mi,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \end{cases}$$

1.6738 **Relation:** [d,e,f,m,mi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.6739 Relation: [d,e,f,m,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6740 **Relation:** [d,e,f,m,mi,s,si]

Complement relation.

$$\begin{cases} [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j - \ell_i + 1, \underline{o}_j - 1] \cup [\overline{o}_j + \ell_j - \ell_i + 1, \underline{o}_j + \ell_j - 1] \cup [\overline{o}_j + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j - \ell_i + 1, \underline{o}_j - 1] \cup [\overline{o}_j + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j - \ell_i + 1, \underline{o}_j - 1] \cup [\overline{o}_j + 1, \underline{o}_j + \ell_j - 1] \cup [\overline{o}_j + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.6741 **Relation:** [d,e,f,m,mi,si]

Complement relation.

$$\left. \begin{aligned} & [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ & [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ & [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ & [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ & [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{aligned} \right\}$$

1.6742 Relation: [d,e,f,m,o]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.6743 Relation: [d,e,f,m,o,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.6744 Relation: [d,e,f,m,o,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.6745 Relation: [d,e,f,m,o,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.6746 Relation: [d,e,f,m,o,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.6747 Relation: [d,e,f,m,o,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.6748 Relation: [d,e,f,m,o,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.6749 Relation: [d,e,f,m,o,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.6750 Relation: [d,e,f,m,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \ell_j > 1 \end{cases}$$

1.6751 Relation: [d,e,f,m,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.6752 Relation: [d,e,f,m,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > 1 \end{cases}$$

1.6753 Relation: [d,e,f,m,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.6754 Relation: [d,e,f,m,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.6755 Relation: [d,e,f,m,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.6756 Relation: [d,e,f,m,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.6757 Relation: [d,e,f,mi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.6758 Relation: [d,e,f,mi,o]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.6759 Relation: [d,e,f,mi,o,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.6760 Relation: [d,e,f,mi,o,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.6761 Relation: [d,e,f,mi,o,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.6762 Relation: [d,e,f,mi,o,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.6763 Relation: [d,e,f,mi,o,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.6764 Relation: [d,e,f,mi,o,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.6765 Relation: [d,e,f,mi,o,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.6766 Relation: [d,e,f,mi,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \end{cases}$$

1.6767 Relation: [d,e,f,mi,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.6768 Relation: [d,e,f,mi,oi,s,si]

Complement relation.

$$] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[$$

1.6769 Relation: [d,e,f,mi,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.6770 Relation: [d,e,f,mi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.6771 Relation: [d,e,f,mi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.6772 Relation: [d,e,f,mi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.6773 Relation: [d,e,f,o]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.6774 Relation: [d,e,f,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.6775 Relation: [d,e,f,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.6776 Relation: [d,e,f,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.6777 Relation: [d,e,f,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.6778 Relation: [d,e,f,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.6779 Relation: [d,e,f,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.6780 Relation: [d,e,f,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.6781 Relation: [d,e,f,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.6782 Relation: [d,e,f,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.6783 Relation: [d,e,f,oi,s,si]

Complement relation.

$$] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[$$

1.6784 Relation: [d,e,f,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.6785 Relation: [d,e,f,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6786 Relation: [d,e,f,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.6787 Relation: [d,e,f,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.6788 Relation: [d,e,fi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, +\infty[& \text{if } \ell_i = \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.6789 Relation: [d,e,fi,m]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 2, +\infty[& \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.6790 Relation: [d,e,fi,m,mi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.6791 Relation: [d,e,fi,m,mi,o]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - 2] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \end{cases}$$

1.6792 Relation: [d,e,fi,m,mi,o,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

Complement relation.

Complement relation.

Complement relation.

Complement relation.

Complement relation.

1171

Complement relation.

1.6805 **Relation:** [d,e,fi,m,mi,si]

Complement relation.

1.6806 Relation: [d,e,fi,m,o]

Complement relation.

1.6807 **Relation:** [d,e,fi,m,o,oi]

Complement relation.

1.6808 Relation: [d,e,fi,m,o,oi,s]

Complement relation.

1172

1.6809 Relation: [d,e,fi,m,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - 2] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - 2] \cup [\overline{o_j} + 1, +\infty] & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty] & \text{if } \ell_i > \ell_j + 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty] & \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.6810 **Relation:** [d,e,fi,m,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 2] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 2] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.6811 Relation: [d,e,fi,m,o,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.6812 **Relation:** [d,e,fi,m,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.6813 **Relation:** [d,e,fi,m,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = \ell_j - 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.6814 **Relation:** [d,e,fi,m,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - 2] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - 2] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 2, +\infty[& \text{if } \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + 2\ell_j - 2\ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.6819 Relation: [d,e,fi,m,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.6820 Relation: [d,e,fi,m,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6821 Relation: [d,e,fi,mi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.6822 Relation: [d,e,fi,mi,o]

Complement relation.

$$\left. \begin{array}{l} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\ [-\infty, \underline{o_j} + 2\ell_j - 2\ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\ [-\infty, \underline{o_j} - 2\ell_i + 2] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\end{array} \right\} \quad \begin{array}{l} \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ \text{if } \ell_i \geq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \ell_i > 1 \\ \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array}$$

1.6823 Relation: [d,e,fi,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\] -\infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6824 Relation: [d,e,fi,mi,o,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.6825 Relation: [d,e,fi,mi,o,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.6826 Relation: [d,e,fi,mi,o,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.6827 Relation: [d,e,fi,mi,o,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.6828 Relation: [d,e,fi,mi,o,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - \ell_i + 2, \underline{o_j} + 2\ell_j - 3] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.6829 **Relation:** [d,e,fi,mi,o,si]

Complement relation.

$$\left. \begin{aligned} & [-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ & [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ & [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ & [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ & [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ & [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\ & [-\infty, \underline{o_j} + 2\ell_j - \ell_i - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{aligned} \right\}$$

1.6830 **Relation:** [d,e,fi,mi,oi]

Complement relation.

$$\left. \begin{aligned} &]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i < \ell_j - 1 \\ &]-\infty, \underline{o_j} + 2\ell_j - 2\ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ &]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i > \ell_j \end{aligned} \right\}$$

1.6831 **Relation:** [d,e,fi,mi,oi,s]

Complement relation.

$$\left. \begin{aligned} &] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ &] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ &] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{aligned} \right\}$$

1.6832 **Relation:** [d,e,fi,mi,oi,s,si]

Complement relation.

$$\left. \begin{aligned} &] -\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i < \ell_j \\ &] -\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i > \ell_j + 1 \\ &] -\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{aligned} \right\}$$

1.6833 Relation: [d,e,fi,mi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.6834 Relation: [d,e,fi,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6835 **Relation:** [d,e,fi,mi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] -\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6836 Relation: [d,e,fi,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6837 Relation: [d,e,fi,o]

Complement relation.

$$\left. \begin{array}{ll}] -\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] -\infty, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \neq \ell_j + 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \end{array} \right\}$$

1.6838 **Relation:** [d,e,fi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\] -\infty, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - 2\ell_i + 2] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.6839 **Relation:** [d,e,fi,o,oi,s]

Complement relation.

$$\left. \begin{array}{l} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[\\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[\\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - 1, +\infty[\\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[\\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - \ell_i + 2, +\infty[\end{array} \right\} \begin{array}{l} \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array}$$

1.6840 Relation: [d,e,fi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.6841 Relation: [d,e,fi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.6842 Relation: [d,e,fi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.6843 Relation: [d,e,fi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.6844 Relation: [d,e,fi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.6845 Relation: [d,e,fi,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 2\ell_i + 2] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.6846 Relation: [d,e,fi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - \ell_i + 2, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.6847 Relation: [d,e,fi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.6848 Relation: [d,e,fi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.6849 Relation: [d,e,fi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.6850 Relation: [d,e,fi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.6851 Relation: [d,e,fi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, +\infty[& \text{if } \ell_i = \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.6852 Relation: [d,e,m]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_j + 2, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.6853 Relation: [d,e,m,mi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \end{array} \right.$$

1.6854 Relation: [d,e,m,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - 2] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_j + \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6855 Relation: [d,e,m,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6856 **Relation:** [d,e,m,mi,o,oi,s]

Complement relation.

$$\left. \begin{aligned} &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, o_j] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{aligned} \right\}$$

1.6857 **Relation:** [d,e,m,mi,o,oi,s,si]

Complement relation.

$$\left. \begin{aligned} &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{aligned} \right\}$$

1.6858 **Relation:** [d,e,m,mi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6859 Relation: [d,e,m,mi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \end{array} \right.$$

1.6860 Relation: [d,e,m,mi,o,s,si]

Complement relation.

$$\left. \begin{array}{l} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\end{array} \right\} \begin{array}{l} \text{if } \ell_i < \ell_j - 1 \\ \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array}$$

1.6861 **Relation:** [d,e,m,mi,o,si]

Complement relation.

$$\left. \begin{aligned} & [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ & [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ & [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_j + \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ & [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ & [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{aligned} \right\}$$

1.6862 Relation: [d,e,m,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + 2\ell_j - 2\ell_i - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6863 **Relation:** [d,e,m,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty] & \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty] & \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty] & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty] & \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6864 **Relation:** [d,e,m,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.6865 **Relation:** [d,e,m,mi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o}_j - \ell_i - 1] \cup [\underline{o}_j - \ell_i + 1, \underline{o}_j] \cup [\underline{o}_j + \ell_j - \ell_i, \underline{o}_j + \ell_j - \ell_i] \cup [\underline{o}_j + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\underline{o}_j + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\underline{o}_j - \ell_i + 1, \underline{o}_j + 1] \cup [\underline{o}_j + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\underline{o}_j - \ell_i + 1, \underline{o}_j - 1] \cup [\underline{o}_j + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.6866 Relation: [d,e,m,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.6867 **Relation:** [d,e,m,mi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6868 **Relation:** [d,e,m,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6869 Relation: [d,e,m,o]

Complement relation.

$$\left. \begin{aligned} &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_j + \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i > \ell_j \end{aligned} \right\}$$

1.6870 **Relation:** [d,e,m,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.6871 Relation: [d,e,m,o,oi,s]

Complement relation.

$$\left. \begin{array}{l} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[\end{array} \right\} \begin{array}{l} \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array}$$

1.6872 **Relation:** [d,e,m,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 2] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 2] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6873 **Relation:** [d,e,m,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6874 Relation: [d,e,m,o,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \end{cases}$$

1.6875 **Relation:** [d,e,m,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6876 **Relation:** [d,e,m,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_j + \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6877 Relation: [d,e,m,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_j + 2, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + 2\ell_j - 2\ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.6883 Relation: [d,e,m,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_j + 2, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.6884 Relation: [d,e,mi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \end{array} \right.$$

1.6885 Relation: [d,e,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + 2\ell_j - 2\ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - \ell_j + \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.6886 Relation: [d,e,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.6887 Relation: [d,e,mi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.6894 Relation: [d,e,mi,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.6895 Relation: [d,e,mi,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.6896 Relation: [d,e,mi,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.6897 Relation: [d,e,mi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.6898 Relation: [d,e,mi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \end{cases}$$

1.6899 Relation: [d,e,mi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [-\infty, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

Complement relation.

$$\left. \begin{array}{l}] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[\\] -\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - 1, +\infty[\\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[\\] -\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[\\] -\infty, +\infty[\\] -\infty, o_j - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, o_j] \cup [\overline{o_j} + \ell_j, +\infty[\end{array} \right\} \begin{array}{l} \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array}$$

Complement relation.

$$\left. \begin{aligned} & [-\infty, \underline{o}_j - \ell_i] \cup [\overline{o}_j + \ell_j - \ell_i, \underline{o}_j + \ell_j - \ell_i] \cup [\overline{o}_j + \ell_j, +\infty[&& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ & [-\infty, \underline{o}_j - 1] \cup [\overline{o}_j + \ell_j - \ell_i, +\infty[&& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ & [-\infty, \underline{o}_j - \ell_i] \cup [\overline{o}_j + \ell_j, +\infty[&& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ & [-\infty, \underline{o}_j - \ell_i] \cup [\overline{o}_j + \ell_j - \ell_i, \underline{o}_j - 1] \cup [\overline{o}_j + \ell_j, +\infty[&& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ & [-\infty, \underline{o}_j - 1] \cup [\overline{o}_j + 1, +\infty[&& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{aligned} \right\}$$

Complement relation.

$$\left. \begin{array}{l}] -\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[\\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[\\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[\\] -\infty, +\infty[\\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, +\infty[\\] -\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[\\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[\end{array} \right\} \begin{array}{l} \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ \text{if } \ell_j = 1 \\ \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array}$$

1.6905 Relation: [d,e,o,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \end{cases}$$

1.6906 Relation: [d,e,o,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.6907 Relation: [d,e,o,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - \ell_j + \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.6908 Relation: [d,e,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.6909 Relation: [d,e,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.6910 Relation: [d,e,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.6911 Relation: [d,e,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.6912 Relation: [d,e,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6913 Relation: [d,e,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \end{array} \right.$$

1.6914 Relation: [d,e,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, +\infty[& \text{if } \ell_i = \ell_j - 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.6915 Relation: [d,f]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, +\infty[& \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.6916 Relation: [d,f,fi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6917 Relation: [d,f,fi,m]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.6918 **Relation:** [d,f,fi,m,mi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.6919 Relation: [d,f,fi,m,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6920 **Relation:** [d,f,fi,m,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j, \underline{o}_j] \cup [\overline{o}_j + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \\]-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j - \ell_i + 1, \underline{o}_j] \cup [\overline{o}_j + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.6921 Relation: [d,f,fi,m,mi,o,oi,s]

Complement relation.

$$\left. \begin{aligned} &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i < \ell_j \\ &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i = \ell_j \\ &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, o_j] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i > \ell_j \end{aligned} \right\}$$

1.6922 Relation: [d,f,fi,m,mi,o,oi,s,si]

Complement relation.

$$\left. \begin{aligned} &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i = \ell_j \\ &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \\ &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i > \ell_j + 1 \end{aligned} \right\}$$

1.6923 Relation: [d,f,fi,m,mi,o,oi,si]

Complement relation.

$$\left. \begin{aligned} &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i = \ell_j + 1 \\ &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i \leq \ell_j \\ &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i > \ell_j + 1 \end{aligned} \right\}$$

1.6924 Relation: [d,f,fi,m,mi,o,s]

Complement relation.

$$\left. \begin{aligned} &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \\ &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \ell_i > 1 \end{aligned} \right\}$$

1.6925 **Relation:** [d,f,fi,m,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6926 Relation: [d,f,fi,m,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_j + \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6927 Relation: [d,f,fi,m,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \underline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.6933 Relation: [d,f,fi,m,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6934 Relation: [d,f,fi,m,o]

Complement relation.

$$\left. \begin{aligned} & [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[&& \text{if } \ell_i < \ell_j \\ & [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[&& \text{if } \ell_i = \ell_j \\ & [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[&& \text{if } \ell_i > \ell_j \end{aligned} \right\}$$

1.6935 **Relation:** [d,f,fi,m,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6936 Relation: [d,f,fi,m,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, o_j] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6937 **Relation:** [d,f,fi,m,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_i - 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.6938 Relation: [d,f,fi,m,o,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_i - 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.6939 Relation: [d,f,fi,m,o,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \end{cases}$$

1.6940 Relation: [d,f,fi,m,o,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_j + \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.6941 Relation: [d,f,fi,m,o,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_j + \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.6942 Relation: [d,f,fi,m,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{cases}$$

1.6943 Relation: [d,f,fi,m,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.6949 Relation: [d,f,fi,mi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.6950 Relation: [d,f,fi,mi,o]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.6951 Relation: [d,f,fi,mi,o,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.6952 Relation: [d,f,fi,mi,o,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.6953 Relation: [d,f,fi,mi,o,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.6954 Relation: [d,f,fi,mi,o,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.6955 Relation: [d,f,fi,mi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j}] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.6956 Relation: [d,f,fi,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + 2\ell_j - 2\ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - \ell_j + \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6957 Relation: [d,f,fi,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 2\ell_i + 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - \ell_j + \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6958 Relation: [d,f,fi,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6959 Relation: [d,f,fi,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6960 Relation: [d,f,fi,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} + 2\ell_j - 2\ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.6961 Relation: [d,f,fi,mi,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.6962 Relation: [d,f,fi,mi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.6963 Relation: [d,f,fi,mi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.6964 Relation: [d,f,fi,mi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - 2\ell_i + 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.6965 Relation: [d,f,fi,o]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.6966 Relation: [d,f,fi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - 2\ell_i + 2] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6967 Relation: [d,f,fi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.6968 Relation: [d,f,fi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.6969 Relation: [d,f,fi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 2\ell_i + 2] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.6970 Relation: [d,f,fi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \end{array} \right.$$

1.6971 Relation: [d,f,fi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - \ell_j + \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.6972 Relation: [d,f,fi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - \ell_j + \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.6973 Relation: [d,f,fi,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.6974 Relation: [d,f,fi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.6975 Relation: [d,f,fi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} + 2\ell_j - 2\ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.6976 Relation: [d,f,fi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.6977 Relation: [d,f,fi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6978 Relation: [d,f,fi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.6979 Relation: [d,f,fi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.6980 Relation: [d,f,m]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.6981 Relation: [d,f,m,mi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.6982 Relation: [d,f,m,mi,o]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.6983 Relation: [d,f,m,mi,o,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.6984 Relation: [d,f,m,mi,o,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.6985 **Relation:** [d,f,m,mi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6986 Relation: [d,f,m,mi,o,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.6987 Relation: [d,f,m,mi,o,s]

Complement relation.

$$\left. \begin{aligned} &] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ &] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ &] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{aligned} \right\}$$

1.6988 Relation: [d,f,m,mi,o,s,si]

Complement relation.

$$\left. \begin{array}{l} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\end{array} \right\} \begin{array}{l} \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ \text{if } \ell_i = \ell_j \\ \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array}$$

1.6989 Relation: [d,f,m,mi,o,si]

Complement relation.

$$\left. \begin{array}{l} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j + 1, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[\end{array} \right\} \quad \begin{array}{l} \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \text{if } \ell_i = 1 \\ \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array}$$

1.6990 Relation: [d,f,m,mi,oi]

Complement relation.

$$]-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, o_j] \cup [\overline{o_j} + \ell_j + 1, +\infty[$$

1.6991 Relation: [d,f,m,mi,oi,s]

Complement relation.

$$\left. \begin{aligned} &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i \geq \ell_j \end{aligned} \right\}$$

1.6992 Relation: [d,f,m,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.6993 Relation: [d,f,m,mi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{a}_j - \ell_i - 1] \cup [\overline{a}_j - \ell_i + 1, \underline{a}_j] \cup [\overline{a}_j + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{a}_j - \ell_i - 1] \cup [\overline{a}_j - \ell_i + 1, \underline{a}_j - 1] \cup [\overline{a}_j + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.6994 Relation: [d,f,m,mi,s]

Complement relation.

$$\left. \begin{aligned} &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{aligned} \right\}$$

1.6995 Relation: [d,f,m,mi,s,si]

Complement relation.

$$\left. \begin{array}{l} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\end{array} \right\} \quad \begin{array}{l} \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ \text{if } \ell_i = \ell_j \\ \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array}$$

1.6996 Relation: [d,f,m,mi,si]

Complement relation.

$$\left. \begin{aligned} & [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ & [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ & [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ & [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ & [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{aligned} \right\}$$

1.6997 Relation: [d,f,m,o]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.6998 Relation: [d,f,m,o,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.6999 Relation: [d,f,m,o,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.7000 Relation: [d,f,m,o,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - 2] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7001 Relation: [d,f,m,o,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7002 Relation: [d,f,m,o,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.7003 Relation: [d,f,m,o,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7004 Relation: [d,f,m,o,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7005 Relation: [d,f,m,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_j > 1 \end{cases}$$

1.7006 Relation: [d,f,m,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.7007 Relation: [d,f,m,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.7008 Relation: [d,f,m,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7009 Relation: [d,f,m,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.7010 Relation: [d,f,m,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7011 Relation: [d,f,m,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7012 Relation: [d,f,mi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.7013 Relation: [d,f,mi,o]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.7014 Relation: [d,f,mi,o,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.7015 Relation: [d,f,mi,o,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.7016 Relation: [d,f,mi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.7017 Relation: [d,f,mi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.7018 Relation: [d,f,mi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.7019 Relation: [d,f,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.7020 Relation: [d,f,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.7021 Relation: [d,f,mi,oi]

Complement relation.

$$] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[$$

1.7022 Relation: [d,f,mi,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.7023 Relation: [d,f,mi,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \end{cases}$$

1.7024 Relation: [d,f,mi,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7025 Relation: [d,f,mi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.7026 Relation: [d,f,mi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.7027 Relation: [d,f,mi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.7028 Relation: [d,f,o]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, +\infty[& \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.7029 Relation: [d,f,o,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, +\infty[& \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.7030 Relation: [d,f,o,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, +\infty[& \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.7031 Relation: [d,f,o,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.7032 Relation: [d,f,o,oi,si]

Complement relation.

$$\begin{cases}] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.7033 Relation: [d,f,o,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, +\infty[& \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.7034 Relation: [d,f,o,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.7035 Relation: [d,f,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.7036 Relation: [d,f,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, +\infty[& \text{if } \ell_j = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_j > 1 \end{array} \right.$$

1.7037 Relation: [d,f,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, +\infty[& \text{if } \ell_j = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.7038 Relation: [d,f,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \neq \ell_j \end{array} \right.$$

1.7039 Relation: [d,f,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.7040 Relation: [d,f,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, +\infty[& \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.7041 Relation: [d,f,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7042 Relation: [d,f,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7043 Relation: [d,fi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7044 Relation: [d,fi,m]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.7045 Relation: [d,fi,m,mi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 2, \underline{o_j}] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.7046 Relation: [d,fi,m,mi,o]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.7047 Relation: [d,fi,m,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.7048 **Relation:** [d,fi,m,mi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j - \ell_i, \underline{o}_j + \ell_j - \ell_i] \cup [\overline{o}_j + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j - \ell_i + 1, \underline{o}_j] \cup [\overline{o}_j + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.7049 Relation: [d,fi,m,mi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, o_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.7050 Relation: [d,fi,m,mi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.7051 Relation: [d,fi,m,mi,o,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7052 **Relation:** [d,fi,m,mi,o,s,si]

Complement relation.

$$\left. \begin{aligned} &] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ &] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i \leq \ell_j \wedge \ell_i \neq \ell_j - 1 \\ &] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ &] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ &] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \end{aligned} \right\}$$

1.7063 Relation: [d,fi,m,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.7064 Relation: [d,fi,m,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 2] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.7065 Relation: [d,fi,m,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.7066 Relation: [d,fi,m,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.7067 Relation: [d,fi,m,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \neq \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \end{array} \right.$$

1.7068 Relation: [d,fi,m,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.7074 Relation: [d,fi,m,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 2] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 2] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 2, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.7075 Relation: [d,fi,m,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_i - 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.7076 Relation: [d,fi,mi]

Complement relation.

$$\begin{cases} [-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7077 Relation: [d,fi,mi,o]

Complement relation.

$$\left. \begin{array}{l} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\ [-\infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\ [-\infty, \underline{o_j} - 2\ell_i + 2] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\end{array} \right\} \quad \begin{array}{l} \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ \text{if } \ell_i > \ell_j + 1 \\ \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array}$$

1.7078 **Relation:** [d,fi,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.7079 Relation: [d,fi,mi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.7080 Relation: [d,fi,mi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.7081 Relation: [d,fi,mi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\] - \infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.7082 Relation: [d,fi,mi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.7083 Relation: [d,fi,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \neq \ell_j - 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} + 2\ell_j - 2\ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - \ell_i + 2, \underline{o_j} + 2\ell_j - 3] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.7084 Relation: [d,fi,mi,o,si]

Complement relation.

$$\left. \begin{aligned} & [-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ & [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ & [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ & [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ & [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ & [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ & [-\infty, \underline{o_j} + \ell_j - 2\ell_i + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{aligned} \right\}$$

1.7085 Relation: [d,fi,mi,oi]

Complement relation.

$$\left. \begin{aligned} &]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i < \ell_j - 1 \\ &]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ &]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i > \ell_j \end{aligned} \right\}$$

1.7086 Relation: [d,fi,mi,oi,s]

Complement relation.

$$\left. \begin{aligned} &]-\infty, \underline{o_j}-1] \cup [\overline{o_j}+\ell_j-\ell_i, \underline{o_j}+\ell_j-\ell_i] \cup [\overline{o_j}+\ell_j+1, +\infty[& \text{if } \ell_i < \ell_j \\ &]-\infty, \underline{o_j}] \cup [\overline{o_j}+\ell_j+1, +\infty[& \text{if } \ell_i = \ell_j \\ &]-\infty, \underline{o_j}+\ell_j-\ell_i-1] \cup [\overline{o_j}+\ell_j-\ell_i+1, \underline{o_j}] \cup [\overline{o_j}+\ell_j+1, +\infty[& \text{if } \ell_i > \ell_j \end{aligned} \right\}$$

1.7087 **Relation:** [d,fi,mi,oi,s,si]

Complement relation.

$$\left. \begin{aligned} &] -\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i < \ell_j \\ &] -\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i > \ell_j + 1 \\ &] -\infty, \underline{o_j} + 2\ell_j - 2\ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{aligned} \right\}$$

1.7088 **Relation:** [d,fi,mi,oi,si]

Complement relation.

$$\left. \begin{aligned} & [-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i < \ell_j - 1 \\ & [-\infty, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i = \ell_j - 1 \\ & [-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i > \ell_j + 1 \\ & [-\infty, \underline{o_j} + 2\ell_j - 2\ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{aligned} \right\}$$

1.7089 **Relation:** [d,fi,mi,s]

Complement relation.

$$\left. \begin{aligned} &] -\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ &] -\infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ &] -\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{aligned} \right\}$$

1.7090 **Relation:** [d,fi,mi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - 1] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + \underline{\ell_j} - 1] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{\ell_j} - 1] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i} - 1] \cup [\overline{o_j} + \underline{\ell_j} - \underline{\ell_i} + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{\ell_j} - 1] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.7091 Relation: [d,fi,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + 2\ell_j - 2\ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.7092 Relation: [d,fi,o]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] -\infty, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.7093 **Relation:** [d,fi,o,oi]

Complement relation.

$$\left. \begin{array}{l}] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[\\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, +\infty[\\] -\infty, +\infty[\\] -\infty, \underline{o_j} - 2\ell_i + 2] \cup [\overline{o_j} + \ell_j - 1, +\infty[\\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[\\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[\\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[\end{array} \right\} \begin{array}{l} \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array}$$

1.7094 Relation: [d,fi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.7095 Relation: [d,fi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.7096 Relation: [d,fi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, o_j] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \\] - \infty, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, o_j - \ell_i] \cup [\overline{o_j}, o_j + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.7097 Relation: [d,fi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.7098 Relation: [d,fi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \neq \ell_j - 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \end{array} \right.$$

1.7099 Relation: [d,fi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, o_j] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\] - \infty, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.7100 Relation: [d,fi,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 2\ell_i + 2] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.7101 Relation: [d,fi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.7102 Relation: [d,fi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} + 2\ell_j - 2\ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.7103 Relation: [d,fi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} + 2\ell_j - 2\ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.7104 Relation: [d,fi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.7105 Relation: [d,fi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.7106 Relation: [d,fi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\] - \infty, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.7107 Relation: [d,m]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \end{cases}$$

1.7108 Relation: [d,m,mi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \end{cases}$$

1.7109 Relation: [d,m,mi,o]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7110 Relation: [d,m,mi,o,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7111 Relation: [d,m,mi,o,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7112 **Relation:** [d,m,mi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j - \ell_i, \underline{o}_j + \ell_j - \ell_i] \cup [\overline{o}_j + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j - \ell_i, \underline{o}_j - 1] \cup [\overline{o}_j + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.7113 Relation: [d,m,mi,o,oi,si]

Complement relation.

$$\left. \begin{aligned} &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{aligned} \right\}$$

1.7114 Relation: [d,m,mi,o,s]

Complement relation.

$$]-\infty, o_i - \ell_i - 1] \cup [\overline{o_i} + \ell_i - \ell_i, o_i + \ell_i - 1] \cup [\overline{o_i} + \ell_i + 1, +\infty[$$

1.7115 Relation: [d,m,mi,o,s,si]

Complement relation.

$$\left. \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right\}$$

1.7116 **Relation:** [d,m,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.7117 Relation: [d,m,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.7118 Relation: [d,m,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.7125 Relation: [d,m,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.7126 Relation: [d,m,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.7127 Relation: [d,m,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 2] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.7128 Relation: [d,m,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 2] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 2] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.7129 Relation: [d,m,o,s]

Complement relation.

$$] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[$$

1.7130 Relation: [d,m,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.7131 Relation: [d,m,o,si]

Complement relation.

$$\left. \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, o_j] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, o_j - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right\}$$

1.7132 Relation: [d,m,oi]

Complement relation.

$$\left. \begin{array}{l} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j - 1, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + 1] \cup [\underline{o_j} + \ell_j, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, +\infty[\end{array} \right\} \quad \begin{array}{l} \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array}$$

1.7133 Relation: [d,m,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.7134 Relation: [d,m,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j - \ell_i + 1, \underline{o}_j - 1] \cup [\overline{o}_j + \ell_j - \ell_i, \underline{o}_j + \ell_j - \ell_i] \cup [\overline{o}_j + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j - 1, +\infty[& \text{if } \ell_i = 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j - \ell_i + 1, \underline{o}_j] \cup [\overline{o}_j + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j - \ell_i + 1, \underline{o}_j - 1] \cup [\overline{o}_j + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.7135 Relation: [d,m,oi,si]

Complement relation.

$$\left. \begin{array}{l} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j - 1, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j, +\infty[\end{array} \right\} \begin{array}{l} \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ \text{if } \ell_i > \ell_j \end{array}$$

1.7136 Relation: [d,m,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.7137 Relation: [d,m,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.7138 Relation: [d,m,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.7139 Relation: [d,mi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \end{array} \right.$$

1.7140 Relation: [d,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.7141 Relation: [d,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.7142 Relation: [d,mi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.7143 Relation: [d,mi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j}] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.7144 **Relation:** [d,mi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.7145 Relation: [d,mi,o,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\]-\infty, o_j - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, o_j + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j > 1 \end{cases}$$

1.7146 Relation: [d,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.7147 **Relation:** [d,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.7148 Relation: [d,mi,oi]

Complement relation.

$$\left. \begin{aligned} & [-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i < \ell_j - 1 \\ & [-\infty, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i = \ell_j - 1 \\ & [-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i \geq \ell_j \end{aligned} \right\}$$

1.7149 Relation: [d,mi,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.7150 Relation: [d,mi,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7151 Relation: [d,mi,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7152 Relation: [d,mi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.7153 Relation: [d,mi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \end{cases}$$

1.7154 Relation: [d,mi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.7155 Relation: [d,o]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.7156 Relation: [d,o,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\]-\infty, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.7157 Relation: [d,o,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, +\infty[& \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.7158 Relation: [d,o,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.7159 Relation: [d,o,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.7160 Relation: [d,o,s]

Complement relation.

$$\begin{cases}] - \infty, +\infty[& \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_j > 1 \end{cases}$$

1.7161 Relation: [d,o,s,si]

Complement relation.

$$\begin{cases}] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \neq \ell_j - 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.7162 Relation: [d,o,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.7163 Relation: [d,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\] - \infty, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.7164 Relation: [d,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, +\infty[& \text{if } \ell_j = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.7165 Relation: [d,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.7166 Relation: [d,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.7167 Relation: [d,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, +\infty[& \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.7168 Relation: [d,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.7169 Relation: [d,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.7170 Relation: [di]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.7171 Relation: [di,e]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.7172 Relation: [di,e,f]

Complement relation.

$$\begin{cases}] - \infty, +\infty[& \text{if } \ell_i = \ell_j + 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.7173 Relation: [di,e,f,fi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7174 Relation: [di,e,f,fi,m]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.7175 Relation: [di,e,f,fi,m,mi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.7176 Relation: [di,e,f,fi,m,mi,o]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 2] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - 2] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7177 **Relation:** [di,e,f,fi,m,mi,o,oi]

Complement relation.

$$\left. \begin{aligned} &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i < \ell_j \\ &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i = \ell_j \\ &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i > \ell_j \end{aligned} \right\}$$

1.7178 Relation: [di,e,f,fi,m,mi,o,oi,s]

Complement relation.

$$\left. \begin{aligned} &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i < \ell_j - 1 \\ &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i > \ell_j \end{aligned} \right\}$$

1.7179 **Relation:** [di,e,f,fi,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \end{cases}$$

1.7180 **Relation:** [di,e,f,fi,m,mi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j, \underline{o}_j + \ell_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.7181 **Relation:** [di,e,f,fi,m,mi,o,s]

Complement relation.

$$\left. \begin{array}{l} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\end{array} \right\} \quad \begin{array}{l} \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ \text{if } \ell_i > \ell_j \end{array}$$

1.7182 Relation: [di,e,f,fi,m,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.7183 Relation: [di,e,f,fi,m,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.7184 Relation: [di,e,f,fi,m,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 2] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.7185 Relation: [di,e,f,fi,m,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.7186 **Relation:** [di,e,f,fi,m,mi,oi,s,si]

Complement relation.

$$\left. \begin{aligned} &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{aligned} \right\}$$

1.7187 Relation: [di,e,f,fi,m,mi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j > 1 \end{array} \right.$$

1.7194 Relation: [di,e,f,fi,m,o,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \end{cases}$$

1.7195 Relation: [di,e,f,fi,m,o,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.7196 Relation: [di,e,f,fi,m,o,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7197 Relation: [di,e,f,fi,m,o,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.7198 Relation: [di,e,f,fi,m,o,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.7199 Relation: [di,e,f,fi,m,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.7200 Relation: [di,e,f,fi,m,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.7201 Relation: [di,e,f,fi,m,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{\sigma_j} - \ell_i - 1] \cup [\underline{\sigma_j} + 1, \underline{\sigma_j} + \ell_j - \ell_i - 1] \cup [\underline{\sigma_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{\sigma_j} - \ell_i - 1] \cup [\underline{\sigma_j} - \ell_i + 1, \underline{\sigma_j} - 1] \cup [\underline{\sigma_j} + 1, \underline{\sigma_j} + \ell_j - \ell_i - 1] \cup [\underline{\sigma_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{\sigma_j} - \ell_i - 1] \cup [\underline{\sigma_j} - \ell_i + 1, \underline{\sigma_j} - 1] \cup [\underline{\sigma_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{\sigma_j} - \ell_i - 1] \cup [\underline{\sigma_j} - \ell_i + 1, \underline{\sigma_j} + \ell_j - \ell_i - 1] \cup [\underline{\sigma_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{\sigma_j} - \ell_i - 1] \cup [\underline{\sigma_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.7202 Relation: [di,e,f,fi,m,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, o_j + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_j > 1 \end{cases}$$

1.7203 **Relation:** [di,e,f,fi,m,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.7204 Relation: [di,e,f,fi,m,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 2] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \underline{\ell}_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.7205 Relation: [di,e,f,fi,m,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.7206 Relation: [di,e,f,fi,mi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7207 Relation: [di,e,f,fi,mi,o]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7208 Relation: [di,e,f,fi,mi,o,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.7209 Relation: [di,e,f,fi,mi,o,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7210 Relation: [di,e,f,fi,mi,o,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \end{cases}$$

1.7211 Relation: [di,e,f,fi,mi,o,oi,si]

Complement relation.

$$\left. \begin{aligned} &] - \infty, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ &] - \infty, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ &] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{aligned} \right\}$$

1.7212 Relation: [di,e,f,fi,mi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.7213 **Relation:** [di,e,f,fi,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.7214 **Relation:** [di,e,f,fi,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.7215 Relation: [di,e,f,fi,mi,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, o_j] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7216 Relation: [di,e,f,fi,mi,oi,s]

Complement relation.

$$\left. \begin{aligned} &]-\infty, \underline{o_j}-1] \cup [\overline{o_j}+1, \underline{o_j}+\ell_j-\ell_i-1] \cup [\overline{o_j}+\ell_j+1, +\infty[&& \text{if } \ell_i < \ell_j-1 \\ &]-\infty, \underline{o_j}-1] \cup [\overline{o_j}+\ell_j+1, +\infty[&& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j-1 \\ &]-\infty, \underline{o_j}+\ell_j-\ell_i-1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j}+\ell_j+1, +\infty[&& \text{if } \ell_i > \ell_j \end{aligned} \right\}$$

1.7217 Relation: [di,e,f,fi,mi,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7218 Relation: [di,e,f,fi,mi,oi,si]

Complement relation.

$$] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[$$

1.7219 Relation: [di,e,f,fi,mi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7220 Relation: [di,e,f,fi,mi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 2, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.7221 Relation: [di,e,f,fi,mi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.7222 Relation: [di,e,f,fi,o]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7223 Relation: [di,e,f,fi,o,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.7224 Relation: [di,e,f,fi,o,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.7225 Relation: [di,e,f,fi,o,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \end{cases}$$

1.7226 Relation: [di,e,f,fi,o,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.7227 Relation: [di,e,f,fi,o,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7228 Relation: [di,e,f,fi,o,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.7229 Relation: [di,e,f,fi,o,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.7230 Relation: [di,e,f,fi,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.7231 Relation: [di,e,f,fi,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.7232 Relation: [di,e,f,fi,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7233 Relation: [di,e,f,fi,oi,si]

Complement relation.

$$] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[$$

1.7234 Relation: [di,e,f,fi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7235 Relation: [di,e,f,fi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7236 Relation: [di,e,f,fi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7237 **Relation:** [di,e,f,m]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.7238 Relation: [di,e,f,m,mi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.7239 Relation: [di,e,f,m,mi,o]

Complement relation.

$$\left. \begin{aligned} & [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ & [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ & [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ & [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ & [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 2\ell_j - 2\ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{aligned} \right\}$$

1.7240 **Relation:** [di,e,f,m,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.7241 **Relation:** [di,e,f,m,mi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j + 1, \underline{o}_j + \ell_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j - 1, \underline{o}_j] \cup [\overline{o}_j + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j - \ell_i, \underline{o}_j + \ell_j - \ell_i] \cup [\overline{o}_j, \underline{o}_j] \cup [\overline{o}_j + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.7242 **Relation:** [di,e,f,m,mi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.7243 **Relation:** [di,e,f,m,mi,o,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7244 Relation: [di,e,f,m,mi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j + 1, \underline{o}_j + \ell_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j + 1, \underline{o}_j + \ell_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j - \ell_i + 1, \underline{o}_j + \ell_j - 1] \cup [\overline{o}_j + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j - \ell_i + 1, \underline{o}_j + \ell_j - 1] \cup [\overline{o}_j + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j - \ell_i, \underline{o}_j + \ell_j - \ell_i] \cup [\overline{o}_j, \underline{o}_j + \ell_j - 1] \cup [\overline{o}_j + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j + 2\ell_j - 2\ell_i + 1, \underline{o}_j + \ell_j - 1] \cup [\overline{o}_j + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.7245 **Relation:** [di,e,f,m,mi,o,s,si]

Complement relation.

$$\left. \begin{array}{l}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - 2\ell_i + 3, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\end{array} \right\} \begin{array}{l} \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array}$$

1.7246 Relation: [di,e,f,m,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 2] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.7257 Relation: [di,e,f,m,o,oi,s,si]

Complement relation.

$$\begin{cases}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7258 Relation: [di,e,f,m,o,oi,si]

Complement relation.

$$\begin{cases}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7259 Relation: [di,e,f,m,o,s]

Complement relation.

$$\begin{cases}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 2\ell_j - 2\ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.7260 Relation: [di,e,f,m,o,s,si]

Complement relation.

$$\begin{cases}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7261 Relation: [di,e,f,m,o,si]

Complement relation.

$$\begin{cases}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7262 Relation: [di,e,f,m,oi]

Complement relation.

$$\begin{cases}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \neq \ell_j - 1 \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - 2\ell_i + 3, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + 2\ell_j - 2, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.7268 Relation: [di,e,f,m,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.7269 Relation: [di,e,f,mi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.7270 Relation: [di,e,f,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, o_j - \ell_i] \cup [\overline{o_j}, o_j + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, o_j - \ell_i + 1] \cup [\overline{o_j}, o_j] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, o_j - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, o_j - \ell_i] \cup [\overline{o_j} + 2\ell_j - 2\ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\]-\infty, o_j] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, o_j + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i = 1 \end{array} \right.$$

1.7271 Relation: [di,e,f,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, o_j - \ell_i] \cup [\overline{o_j}, o_j + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, o_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, o_j - \ell_i] \cup [\overline{o_j} - 1, o_j] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, o_j - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, o_j - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, o_j] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, o_j + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i = 1 \end{array} \right.$$

1.7272 Relation: [di,e,f,mi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i} - 1] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \underline{\ell_i} < \underline{\ell_j} - 1 \\]-\infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \underline{\ell_i} = \underline{\ell_j} + 1 \wedge \underline{\ell_j} > 1 \\]-\infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \underline{\ell_i} \leq \underline{\ell_j} \wedge \underline{\ell_i} \geq \underline{\ell_j} - 1 \wedge \underline{\ell_i} > 1 \\]-\infty, \underline{o_j} - \underline{\ell_i} + 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \underline{\ell_i} > \underline{\ell_j} + 1 \wedge \underline{\ell_j} = 1 \\]-\infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \underline{\ell_i} > \underline{\ell_j} + 1 \wedge \underline{\ell_j} > 1 \\]-\infty, \underline{o_j} + \underline{\ell_i} - 2] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \underline{\ell_i} \geq \underline{\ell_j} - 1 \wedge \underline{\ell_i} \leq \underline{\ell_j} + 1 \wedge \min(\underline{\ell_i}, \underline{\ell_j}) = 1 \end{array} \right.$$

1.7278 Relation: [di,e,f,mi,oi]

Complement relation.

$$\left. \begin{array}{ll}]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \neq \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \end{array} \right\}$$

1.7279 Relation: [di,e,f,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] -\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\] -\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] -\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, o_j] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.7280 **Relation:** [di,e,f,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.7281 Relation: [di,e,f,mi,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7282 Relation: [di,e,f,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.7283 Relation: [di,e,f,mi,s,si]

Complement relation.

$$\left. \begin{array}{l} [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\ [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\ [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\ [-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\ [-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\ [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\ [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\end{array} \right\} \quad \begin{array}{l} \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\ \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array}$$

1.7284 **Relation:** [di,e,f,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.7285 **Relation:** [di,e,f,o]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \\] -\infty, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 2\ell_j - 2\ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.7286 Relation: [di,e,f,o,oi]

Complement relation.

$$\left. \begin{array}{l}] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[\\] -\infty, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j, +\infty[\\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[\\] -\infty, +\infty[\\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[\\] -\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[\\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[\end{array} \right\} \begin{array}{l} \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \text{if } \ell_i = 1 \\ \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array}$$

1.7287 Relation: [di,e,f,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] -\infty, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] -\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.7288 **Relation:** [di,e,f,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.7289 Relation: [di,e,f,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] -\infty, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.7290 Relation: [di,e,f,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] -\infty, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] -\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.7291 Relation: [di,e,f,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.7292 Relation: [di,e,f,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] -\infty, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.7293 Relation: [di,e,f,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \neq \ell_j - 1 \\] -\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\] -\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.7294 Relation: [di,e,f,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.7295 Relation: [di,e,f,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.7296 Relation: [di,e,f,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.7297 Relation: [di,e,f,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, +\infty[& \text{if } \ell_i = \ell_j + 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.7298 Relation: [di,e,f,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.7299 Relation: [di,e,f,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.7300 Relation: [di,e,fi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.7301 Relation: [di,e,fi,m]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - 2] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.7302 Relation: [di,e,fi,m,mi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.7303 Relation: [di,e,fi,m,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \end{array} \right.$$

1.7304 Relation: [di,e,fi,m,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.7305 Relation: [di,e,fi,m,mi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.7306 Relation: [di,e,fi,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.7307 Relation: [di,e,fi,m,mi,o,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.7308 Relation: [di,e,fi,m,mi,o,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7309 Relation: [di,e,fi,m,mi,o,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j > 1 \end{cases}$$

1.7310 Relation: [di,e,fi,m,mi,o,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.7311 Relation: [di,e,fi,m,mi,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.7318 Relation: [di,e,fi,m,o]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \neq \ell_j \end{cases}$$

1.7319 Relation: [di,e,fi,m,o,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.7320 Relation: [di,e,fi,m,o,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.7321 Relation: [di,e,fi,m,o,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.7322 Relation: [di,e,fi,m,o,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.7323 Relation: [di,e,fi,m,o,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7324 Relation: [di,e,fi,m,o,s,si]

Complement relation.

$$] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[$$

1.7325 **Relation:** [di,e,fi,m,o,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.7326 Relation: [di,e,fi,m,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.7327 Relation: [di,e,fi,m,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}], +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.7328 **Relation:** [di,e,fi,m,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.7329 Relation: [di,e,fi,m,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.7330 Relation: [di,e,fi,m,s]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.7331 Relation: [di,e,fi,m,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.7332 Relation: [di,e,fi,m,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.7333 Relation: [di,e,fi,mi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7334 Relation: [di,e,fi,mi,o]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.7335 Relation: [di,e,fi,mi,o,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7336 Relation: [di,e,fi,mi,o,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7337 Relation: [di,e,fi,mi,o,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.7338 Relation: [di,e,fi,mi,o,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.7339 Relation: [di,e,fi,mi,o,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7340 Relation: [di,e,fi,mi,o,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j > 1 \end{cases}$$

1.7341 Relation: [di,e,fi,mi,o,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.7342 Relation: [di,e,fi,mi,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7343 Relation: [di,e,fi,mi,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7344 Relation: [di,e,fi,mi,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.7345 Relation: [di,e,fi,mi,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.7346 Relation: [di,e,fi,mi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7347 Relation: [di,e,fi,mi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.7348 Relation: [di,e,fi,mi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.7349 Relation: [di,e,fi,o]

Complement relation.

$$\begin{cases}] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.7350 Relation: [di,e,fi,o,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.7351 Relation: [di,e,fi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.7352 Relation: [di,e,fi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.7353 Relation: [di,e,fi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.7354 Relation: [di,e,fi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.7355 Relation: [di,e,fi,o,s,si]

Complement relation.

$$] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[$$

1.7356 Relation: [di,e,fi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.7357 Relation: [di,e,fi,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.7358 Relation: [di,e,fi,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.7359 Relation: [di,e,fi,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.7360 Relation: [di,e,fi,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.7361 Relation: [di,e,fi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7362 Relation: [di,e,fi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7363 Relation: [di,e,fi,si]

Complement relation.

$$\begin{cases}]-\infty, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.7364 Relation: [di,e,m]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i - 1[\cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i - 1[\cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1[\cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - \ell_i - 1[\cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \\] -\infty, \underline{o_j} - \ell_i - 1[\cup [\overline{o_j} - \ell_i + 1, o_j + \ell_j - \ell_i[\cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.7365 Relation: [di,e,m,mi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.7366 Relation: [di,e,m,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j, \underline{o}_j + \ell_j - 1] \cup [\overline{o}_j + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j - \ell_i, \underline{o}_j + \ell_j - \ell_i] \cup [\overline{o}_j, \underline{o}_j + \ell_j - 1] \cup [\overline{o}_j + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j + 2\ell_j - 2\ell_i + 1, \underline{o}_j + \ell_j - 1] \cup [\overline{o}_j + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.7367 **Relation:** [di,e,m,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.7368 Relation: [di,e,m,mi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, o_j] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.7369 Relation: [di,e,m,mi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.7382 Relation: [di,e,m,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.7383 Relation: [di,e,m,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - 2\ell_i + 3, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.7384 Relation: [di,e,m,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 2] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.7385 Relation: [di,e,m,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.7386 Relation: [di,e,m,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.7387 **Relation:** [di,e,m,o,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, o_j + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7388 Relation: [di,e,m,o,si]

Complement relation.

$$\left. \begin{aligned} &]-\infty, \overline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[&& \text{if } \ell_i < \ell_j \\ &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[&& \text{if } \ell_i = \ell_j \\ &]-\infty, \overline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, o_j + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[&& \text{if } \ell_i > \ell_j \end{aligned} \right\}$$

1.7389 Relation: [di,e,m,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}], +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - 2\ell_i + 3, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\underline{o_j}], +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - \ell_j + \ell_i - 1] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.7390 **Relation:** [di,e,m,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - 2\ell_i + 3, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\underline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - \ell_j + \ell_i - 1] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.7391 Relation: [di,e,m,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.7392 **Relation:** [di,e,m,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.7393 Relation: [di,e,m,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.7394 Relation: [di,e,m,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.7395 Relation: [di,e,m,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.7396 Relation: [di,e,mi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_j + \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.7397 Relation: [di,e,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_j + \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 2\ell_j - 2\ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.7403 Relation: [di,e,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.7404 Relation: [di,e,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.7405 Relation: [di,e,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_j + \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.7406 Relation: [di,e,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_j + \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.7407 Relation: [di,e,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.7408 Relation: [di,e,mi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \end{array} \right.$$

1.7409 Relation: [di,e,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - \ell_j + \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.7410 Relation: [di,e,mi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.7411 Relation: [di,e,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] -\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.7412 Relation: [di,e,o]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\] -\infty, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\] -\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.7413 Relation: [di,e,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\] -\infty, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\] -\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.7414 **Relation:** [di,e,o,oi,s]

Complement relation.

$$\left. \begin{array}{l}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[\\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[\\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[\\]-\infty, +\infty[\\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[\\]-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[\\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, o_j + \ell_j - \ell_i] \cup [\overline{o_j}, o_j] \cup [\overline{o_j} + \ell_j, +\infty[\end{array} \right\} \begin{array}{l} \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \text{if } \ell_i = 1 \\ \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array}$$

1.7415 Relation: [di,e,o,oi,s,si]

Complement relation.

$$\left. \begin{array}{l} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[\\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[\\ [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[\\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[\\ [-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[\end{array} \right\} \quad \begin{array}{l} \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array}$$

1.7416 Relation: [di,e,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] -\infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.7417 Relation: [di,e,o,s]

Complement relation.

$$\left. \begin{array}{l}] -\infty, +\infty[\\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, +\infty[\\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[\\] -\infty, \underline{o_j} - \ell_j + 1] \cup [\overline{o_j}, +\infty[\\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[\end{array} \right\} \begin{array}{l} \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ \text{if } \ell_i \leq \ell_j \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array}$$

1.7418 Relation: [di,e,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.7419 Relation: [di,e,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.7420 Relation: [di,e,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.7421 Relation: [di,e,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \\] - \infty, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_j + \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.7422 Relation: [di,e,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.7423 Relation: [di,e,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.7424 Relation: [di,e,s]

Complement relation.

$$\begin{cases}] - \infty, +\infty[& \text{if } \ell_i = \ell_j + 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.7425 Relation: [di,e,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.7426 Relation: [di,e,si]

Complement relation.

$$\begin{cases}] - \infty, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7427 Relation: [di,f]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.7428 Relation: [di,f,fi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7429 Relation: [di,f,fi,m]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.7430 **Relation:** [di,f,fi,m,mi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.7431 Relation: [di,f,fi,m,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty] & \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty] & \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty] & \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.7432 Relation: [di,f,fi,m,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \end{array} \right.$$

1.7433 **Relation:** [di,f,fi,m,mi,o,oi,s]

Complement relation.

$$\left. \begin{aligned} &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i < \ell_j - 1 \\ &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i = \ell_j - 1 \\ &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, o_j] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i \geq \ell_j \end{aligned} \right\}$$

1.7434 Relation: [di,f,fi,m,mi,o,oi,s,si]

Complement relation.

$$\left. \begin{aligned} &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \end{aligned} \right\}$$

1.7435 **Relation:** [di,f,fi,m,mi,o,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7446 Relation: [di,f,fi,m,o]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.7447 Relation: [di,f,fi,m,o,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \end{cases}$$

1.7448 Relation: [di,f,fi,m,o,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.7449 Relation: [di,f,fi,m,o,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \end{cases}$$

1.7450 Relation: [di,f,fi,m,o,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7451 Relation: [di,f,fi,m,o,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.7452 Relation: [di,f,fi,m,o,s,si]

Complement relation.

$$\left. \begin{aligned} &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[&& \text{if } \ell_i < \ell_j - 1 \\ &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 2\ell_j - 2\ell_i, +\infty[&& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[&& \text{if } \ell_i > \ell_j \end{aligned} \right\}$$

1.7453 Relation: [di,f,fi,m,o,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7454 Relation: [di,f,fi,m,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, o_j] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.7455 **Relation:** [di,f,fi,m,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_j + \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 2\ell_j - 2, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.7456 Relation: [di,f,fi,m,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 2\ell_j - 2\ell_i, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_j + \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.7457 **Relation:** [di,f,fi,m,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.7458 Relation: [di,f,fi,m,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 2] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 2\ell_j - 2, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.7459 **Relation:** [di,f,fi,m,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.7460 **Relation:** [di,f,fi,m,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.7461 Relation: [di,f,fi,mi]

Complement relation.

$$\left. \begin{aligned} & [-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ & [-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ & [-\infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ & [-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ & [-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{aligned} \right\}$$

1.7462 **Relation:** [di,f,fi,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.7463 Relation: [di,f,fi,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, o_j] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \end{array} \right.$$

1.7464 Relation: [di,f,fi,mi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o}_j - \ell_i] \cup [\overline{o}_j + 1, \underline{o}_j + \ell_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o}_j - \ell_i] \cup [\overline{o}_j + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o}_j - \ell_j + \ell_i] \cup [\overline{o}_j + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o}_j - \ell_i] \cup [\overline{o}_j, o_j] \cup [\overline{o}_j + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.7465 **Relation:** [di,f,fi,mi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_j + \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.7466 Relation: [di,f,fi,mi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.7467 Relation: [di,f,fi,mi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_j + \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.7468 Relation: [di,f,fi,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_j + \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 2\ell_j - 2\ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.7469 Relation: [di,f,fi,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.7470 Relation: [di,f,fi,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.7471 Relation: [di,f,fi,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_j + \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.7472 Relation: [di,f,fi,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_j + \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.7473 Relation: [di,f,fi,mi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \end{array} \right.$$

1.7474 Relation: [di,f,fi,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.7475 **Relation:** [di,f,fi,mi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} -\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ -\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ -\infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ -\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ -\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.7476 **Relation:** [di,f,fi,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.7477 Relation: [di,f,fi,o]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] -\infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.7478 Relation: [di,f,fi,o,oi]

Complement relation.

$$\left. \begin{array}{l} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[\\ [-\infty, +\infty[\\ [-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[\\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[\\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, o_j] \cup [\overline{o_j} + \ell_j, +\infty[\end{array} \right\} \quad \begin{array}{l} \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array}$$

1.7479 Relation: [di,f,fi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.7480 Relation: [di,f,fi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \end{array} \right.$$

1.7481 Relation: [di,f,fi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.7482 Relation: [di,f,fi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.7483 Relation: [di,f,fi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 2\ell_j - 2\ell_i, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.7484 Relation: [di,f,fi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.7485 Relation: [di,f,fi,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.7486 Relation: [di,f,fi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_j + \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.7487 Relation: [di,f,fi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_j + \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.7488 Relation: [di,f,fi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \end{array} \right.$$

1.7489 Relation: [di,f,fi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.7490 Relation: [di,f,fi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}-1] \cup [\overline{o_j}+1, \underline{o_j}+\ell_j-\ell_i-1] \cup [\overline{o_j}+\ell_j-\ell_i+1, +\infty[& \text{if } \ell_i < \ell_j-1 \\]-\infty, +\infty[& \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j}-1] \cup [\overline{o_j}+\ell_j-\ell_i+1, +\infty[& \text{if } \ell_i = \ell_j-1 \\]-\infty, \underline{o_j}+\ell_j-\ell_i-1] \cup [\overline{o_j}+1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7491 Relation: [di,f,fi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}+\ell_j-\ell_i-1] \cup [\overline{o_j}+\ell_j-\ell_i+1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, +\infty[& \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j}+\ell_j-\ell_i-1] \cup [\overline{o_j}+1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7492 Relation: [di,f,m]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}-\ell_i-1] \cup [\overline{o_j}-\ell_i+1, \underline{o_j}+\ell_j-\ell_i-1] \cup [\overline{o_j}+\ell_j-\ell_i+1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j}-\ell_i-1] \cup [\overline{o_j}-\ell_i+1, \underline{o_j}+\ell_j-\ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j+1 \\]-\infty, \underline{o_j}-\ell_i-1] \cup [\overline{o_j}-\ell_i+1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j+1 \end{cases}$$

1.7493 Relation: [di,f,m,mi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}-\ell_i-1] \cup [\overline{o_j}-\ell_i+1, \underline{o_j}+\ell_j-\ell_i-1] \cup [\overline{o_j}+\ell_j-\ell_i+1, \underline{o_j}+\ell_j-1] \cup [\overline{o_j}+\ell_j+1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j}-2] \cup [\overline{o_j}, \underline{o_j}+\ell_j-2] \cup [\overline{o_j}+\ell_j+1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j}-\ell_i-1] \cup [\overline{o_j}-\ell_i+1, \underline{o_j}+\ell_j-\ell_i] \cup [\overline{o_j}, \underline{o_j}+\ell_j-1] \cup [\overline{o_j}+\ell_j+1, +\infty[& \text{if } \ell_i > \ell_j+1 \\]-\infty, \underline{o_j}-\ell_i-1] \cup [\overline{o_j}-\ell_i+1, \underline{o_j}+\ell_j-1] \cup [\overline{o_j}+\ell_j+1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j+1 \end{cases}$$

1.7494 Relation: [di,f,m,mi,o]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}-\ell_i-1] \cup [\overline{o_j}, \underline{o_j}+\ell_j-\ell_i-1] \cup [\overline{o_j}+\ell_j-\ell_i+1, \underline{o_j}+\ell_j-1] \cup [\overline{o_j}+\ell_j+1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j}-2] \cup [\overline{o_j}, \underline{o_j}+\ell_j-2] \cup [\overline{o_j}+\ell_j+1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j}-\ell_i-1] \cup [\overline{o_j}+\ell_j-\ell_i, \underline{o_j}+\ell_j-\ell_i] \cup [\overline{o_j}, \underline{o_j}+\ell_j-1] \cup [\overline{o_j}+\ell_j+1, +\infty[& \text{if } \ell_i > \ell_j+1 \\]-\infty, \underline{o_j}-\ell_i-1] \cup [\overline{o_j}+\ell_j-\ell_i, \underline{o_j}+\ell_j-1] \cup [\overline{o_j}+\ell_j+1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j+1 \end{cases}$$

1.7495 Relation: [di,f,m,mi,o,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}-\ell_i-1] \cup [\overline{o_j}, \underline{o_j}+\ell_j-\ell_i-1] \cup [\overline{o_j}+\ell_j+1, +\infty[& \text{if } \ell_i < \ell_j-1 \\]-\infty, \underline{o_j}-\ell_i-1] \cup [\overline{o_j}-1, \underline{o_j}] \cup [\overline{o_j}+\ell_j+1, +\infty[& \text{if } \ell_i = \ell_j+1 \\]-\infty, \underline{o_j}-\ell_i-1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j}+\ell_j+1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j-1 \\]-\infty, \underline{o_j}-\ell_i-1] \cup [\overline{o_j}+\ell_j-\ell_i, \underline{o_j}+\ell_j-\ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j}+\ell_j+1, +\infty[& \text{if } \ell_i > \ell_j+1 \end{cases}$$

1.7501 Relation: [di,f,m,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.7502 Relation: [di,f,m,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.7503 **Relation:** [di,f,m,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.7504 Relation: [di,f,m,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \neq \ell_j + 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.7505 **Relation:** [di,f,m,mi,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.7511 Relation: [di,f,m,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.7512 **Relation:** [di,f,m,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.7513 **Relation:** [di,f,m,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.7514 Relation: [di,f,m,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.7515 **Relation:** [di,f,m,o,s,si]

Complement relation.

$$\left. \begin{aligned} &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[&& \text{if } \ell_i < \ell_j - 1 \\ &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 2\ell_j - 2\ell_i, +\infty[&& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[&& \text{if } \ell_i > \ell_j \end{aligned} \right\}$$

1.7516 **Relation:** [di,f,m,o,si]

Complement relation.

$$\left. \begin{aligned} &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = \ell_j \\ &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{aligned} \right\}$$

Complement relation.

Complement relation.

Complement relation.

Complement relation.

Complement relation.

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1.7522 Relation: [di,f,m,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.7523 Relation: [di,f,m,si]

Complement relation.

$$\left. \begin{aligned} &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j \\ &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{aligned} \right\}$$

1.7524 Relation: [di,f,mi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [-\infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.7525 **Relation:** [di,f,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.7526 **Relation:** [di,f,mi,o,oi]

Complement relation.

$$\left. \begin{array}{l}] -\infty, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i} - 1] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[\\] -\infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i} - 1] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[\\] -\infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[\\] -\infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[\\] -\infty, \underline{o_j} - \underline{\ell_i} + 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[\\] -\infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j} - \underline{\ell_i}, \underline{o_j} + \underline{\ell_j} - \underline{\ell_i}] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[\\] -\infty, \underline{o_j}] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[\end{array} \right\} \begin{array}{l} \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array}$$

1.7532 Relation: [di,f,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.7533 Relation: [di,f,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.7534 Relation: [di,f,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.7535 Relation: [di,f,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \neq \ell_j + 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \end{array} \right.$$

1.7536 Relation: [di,f,mi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.7537 Relation: [di,f,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_j + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.7538 Relation: [di,f,mi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] -\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] -\infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\] -\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] -\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.7539 Relation: [di,f,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] -\infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\] -\infty, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\] -\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] -\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.7540 Relation: [di,f,o]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] -\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] -\infty, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.7541 Relation: [di,f,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] -\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\] -\infty, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.7547 Relation: [di,f,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.7548 Relation: [di,f,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.7549 Relation: [di,f,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \\] - \infty, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.7550 Relation: [di,f,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \end{array} \right.$$

1.7551 Relation: [di,f,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.7552 Relation: [di,f,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.7553 Relation: [di,f,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7554 Relation: [di,f,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7555 Relation: [di,fi]

Complement relation.

$$\begin{cases}] - \infty, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7556 Relation: [di,fi,m]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.7557 Relation: [di,fi,m,mi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.7558 Relation: [di,fi,m,mi,o]

Complement relation.

$$] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[$$

1.7559 Relation: [di,fi,m,mi,o,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.7560 Relation: [di,fi,m,mi,o,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.7561 Relation: [di,fi,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7562 Relation: [di,fi,m,mi,o,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7563 Relation: [di,fi,m,mi,o,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.7564 Relation: [di,fi,m,mi,o,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \ell_j > 1 \end{cases}$$

1.7565 Relation: [di,fi,m,mi,o,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.7566 Relation: [di,fi,m,mi,oi]

Complement relation.

$$\begin{cases} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.7567 **Relation:** [di,fi,m,mi,oi,s]

Complement relation.

$$\left. \begin{aligned} & [-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, o_j - 1] \cup [\overline{o_j} + 1, o_j + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ & [-\infty, o_j - 2] \cup [\overline{o_j} + 1, o_j + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ & [-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, o_j] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ & [-\infty, o_j - \ell_i - 1] \cup [\overline{o_j}, o_j] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ & [-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, o_j + \ell_j - \ell_i - 1] \cup [\overline{o_j}, o_j] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{aligned} \right\}$$

1.7568 Relation: [di,fi,m,mi,oi,s,si]

Complement relation.

$$\left. \begin{aligned} & [-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, o_j - 1] \cup [\overline{o_j} + 1, o_j + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ & [-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} + 1, o_j + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ & [-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, o_j] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ & [-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ & [-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, o_j + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{aligned} \right\}$$

1.7569 Relation: [di,fi,m,mi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.7570 **Relation:** [di,fi,m,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - 2] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j}] \cup [\underline{o_j} + 2, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.7571 **Relation:** [di,fi,m,mi,s,si]

Complement relation.

$$\left. \begin{array}{l} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\end{array} \right\} \quad \begin{array}{l} \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ \text{if } \ell_i = \ell_j \\ \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array}$$

1.7572 Relation: [di,fi,m,mi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.7573 Relation: [di,fi,m,o]

Complement relation.

$$] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[$$

1.7574 Relation: [di,fi,m,o,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.7575 Relation: [di,fi,m,o,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.7576 Relation: [di,fi,m,o,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 2] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.7577 Relation: [di,fi,m,o,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7578 Relation: [di,fi,m,o,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.7579 Relation: [di,fi,m,o,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \neq \ell_j \end{cases}$$

1.7580 Relation: [di,fi,m,o,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7581 Relation: [di,fi,m,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.7582 Relation: [di,fi,m,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.7583 Relation: [di,fi,m,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.7584 Relation: [di,fi,m,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.7585 Relation: [di,fi,m,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 2] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.7586 Relation: [di,fi,m,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.7587 Relation: [di,fi,m,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.7588 Relation: [di,fi,mi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7589 Relation: [di,fi,mi,o]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \end{cases}$$

1.7590 Relation: [di,fi,mi,o,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.7591 Relation: [di,fi,mi,o,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.7592 Relation: [di,fi,mi,o,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7593 Relation: [di,fi,mi,o,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7594 Relation: [di,fi,mi,o,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.7595 Relation: [di,fi,mi,o,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \ell_j > 1 \end{cases}$$

1.7596 Relation: [di,fi,mi,o,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.7597 Relation: [di,fi,mi,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7598 Relation: [di,fi,mi,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7599 Relation: [di,fi,mi,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7600 Relation: [di,fi,mi,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7601 Relation: [di,fi,mi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7602 Relation: [di,fi,mi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.7603 Relation: [di,fi,mi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.7604 Relation: [di,fi,o]

Complement relation.

$$\begin{cases}] - \infty, +\infty[& \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \end{cases}$$

1.7605 Relation: [di,fi,o,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, +\infty[& \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.7606 Relation: [di,fi,o,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.7607 Relation: [di,fi,o,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.7608 Relation: [di,fi,o,oi,si]

Complement relation.

$$\begin{cases}] - \infty, +\infty[& \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7609 Relation: [di,fi,o,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.7610 Relation: [di,fi,o,s,si]

Complement relation.

$$\begin{cases}] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \neq \ell_j \end{cases}$$

1.7611 Relation: [di,fi,o,si]

Complement relation.

$$\begin{cases}] - \infty, +\infty[& \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7612 Relation: [di,fi,oi]

Complement relation.

$$\begin{cases}] - \infty, +\infty[& \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.7613 Relation: [di,fi,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.7614 Relation: [di,fi,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.7615 Relation: [di,fi,oi,si]

Complement relation.

$$\begin{cases}] - \infty, +\infty[& \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7616 Relation: [di,fi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7617 Relation: [di,fi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7618 Relation: [di,fi,si]

Complement relation.

$$\begin{cases}] - \infty, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7619 Relation: [di,m]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.7620 Relation: [di,m,mi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.7621 Relation: [di,m,mi,o]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.7622 **Relation:** [di,m,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, o_j] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.7623 **Relation:** [di,m,mi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.7624 Relation: [di,m,mi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, o_j + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.7625 **Relation:** [di,m,mi,o,oi,si]

Complement relation.

$$\begin{aligned} & \left] -\infty, \underline{o}_j - \ell_i - 1 \right] \cup \left[\overline{o}_j, \underline{o}_j + \ell_j - \ell_i \right] \cup \left[\overline{o}_j + \ell_j + 1, +\infty \right] & \text{if } \ell_i \leq \ell_j \\ & \left] -\infty, \underline{o}_j - \ell_i - 1 \right] \cup \left[\overline{o}_j + \ell_j - \ell_i, \underline{o}_j + \ell_j - \ell_i \right] \cup \left[\overline{o}_j + \ell_j + 1, +\infty \right] & \text{if } \ell_i > \ell_j \end{aligned}$$

1.7626 Relation: [di,m,mi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.7627 Relation: [di,m,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.7628 **Relation:** [di,m,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.7635 **Relation:** [di,m,mi,si]

Complement relation.

$$\left. \begin{aligned} &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \min(\ell_i, \ell_j) = 1 \\ &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{aligned} \right\}$$

1.7636 Relation: [di,m,o]

Complement relation.

$$\left. \begin{aligned} &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - 1, +\infty[&& \text{if } \ell_i = \ell_j + 1 \\ &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[&& \text{if } \ell_i \leq \ell_j \\ &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[&& \text{if } \ell_i > \ell_j + 1 \end{aligned} \right\}$$

1.7637 **Relation:** [di,m,o,oi]

Complement relation.

$$\left. \begin{array}{l} [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j - 1, \underline{o}_j] \cup [\overline{o}_j + \ell_j, +\infty[\\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j, \underline{o}_j - \ell_j - \ell_i] \cup [\overline{o}_j + \ell_j, +\infty[\\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j - \ell_j + 1, +\infty[\\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j - \ell_i + 1, \underline{o}_j - \ell_j + 1] \cup [\overline{o}_j, +\infty[\\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j - \ell_i, \underline{o}_j + \ell_j - \ell_i] \cup [\overline{o}_j, \underline{o}_j] \cup [\overline{o}_j + \ell_j, +\infty[\end{array} \right\} \quad \begin{array}{l} \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array}$$

1.7638 **Relation:** [di,m,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.7639 Relation: [di,m,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - 2] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - 2] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.7640 **Relation:** [di,m,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

Complement relation.

Complement relation.

1.7642 Relation: [di,m,o,s,si]

Complement relation.

1.7643 **Relation:** [di,m,o,si]

Complement relation.

1.7644 Relation: [di,m,oi]

Complement relation.

1.7645 Relation: [di,m,oi,s]

Complement relation.

1.7646 Relation: [di,m,oi,s,si]

Complement relation.

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1.7647 Relation: [di,m,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > 1 \end{cases}$$

1.7648 Relation: [di,m,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.7649 Relation: [di,m,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.7650 Relation: [di,m,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7651 Relation: [di,mi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.7652 Relation: [di,mi,o]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

Complement relation.

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_j - 1] \cup [\overline{o_j} - 1, o_j] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_j] \cup [\overline{o_j}, o_j + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, o_j] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, o_j + \ell_j - \ell_i] \cup [\overline{o_j}, o_j] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

Complement relation.

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

Complement relation.

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

Complement relation.

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

Complement relation.

Complement relation.

$$\left. \begin{aligned} &] -\infty, o_j - \ell_i] \cup [\overline{o_j} + 1, o_j + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i < \ell_j \\ &] -\infty, o_j] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ &] -\infty, \overline{o_j} - \ell_i + 1] \cup [\overline{o_j}, \overline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ &] -\infty, o_j - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \overline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, o_j + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ &] -\infty, o_j - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \overline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{aligned} \right\}$$

Complement relation.

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.7659 Relation: [di,mi,o,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.7660 Relation: [di,mi,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.7661 Relation: [di,mi,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.7662 Relation: [di,mi,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.7663 Relation: [di,mi,oi,si]

Complement relation.

$$] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[$$

1.7664 Relation: [di,mi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.7665 Relation: [di,mi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.7666 Relation: [di,mi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.7667 Relation: [di,o]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.7668 Relation: [di,o,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.7669 Relation: [di,o,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.7670 Relation: [di,o,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.7671 Relation: [di,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, +\infty[& \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.7672 Relation: [di,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.7673 Relation: [di,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.7674 Relation: [di,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, +\infty[& \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.7675 Relation: [di,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.7676 Relation: [di,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.7677 Relation: [di,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i + 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.7678 Relation: [di,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, +\infty[& \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > 1 \end{array} \right.$$

1.7679 Relation: [di,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.7680 Relation: [di,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.7681 Relation: [di,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.7682 Relation: [e]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, +\infty[& \text{if } \ell_i \neq \ell_j \end{cases}$$

1.7683 Relation: [e,f]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7684 Relation: [e,f,fi]

Complement relation.

$$] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[$$

1.7685 Relation: [e,f,fi,m]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_j > 1 \end{cases}$$

1.7686 Relation: [e,f,fi,m,mi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 2] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - 2] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 2, \underline{o_j}] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.7687 Relation: [e,f,fi,m,mi,o]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 2] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - 2] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.7688 Relation: [e,f,fi,m,mi,o,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

Complement relation.

Complement relation.

Complement relation.

Complement relation.

Complement relation.

Complement relation.

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1.7700 Relation: [e,f,fi,m,mi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 2, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.7701 Relation: [e,f,fi,m,mi,si]

Complement relation.

$$\left. \begin{array}{l}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \underline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\end{array} \right\} \begin{array}{l} \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array}$$

1.7702 Relation: [e,f,fi,m,o]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.7703 Relation: [e,f,fi,m,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, o_j] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.7704 Relation: [e,f,fi,m,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, o_j] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.7705 **Relation:** [e,f,fi,m,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j + 1, \underline{o}_j + \ell_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j - \ell_i + 1, \underline{o}_j - 1] \cup [\overline{o}_j + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.7706 Relation: [e,f,fi,m,o,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.7707 Relation: [e,f,fi,m,o,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \end{cases}$$

1.7708 Relation: [e,f,fi,m,o,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.7709 Relation: [e,f,fi,m,o,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.7710 Relation: [e,f,fi,m,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.7711 Relation: [e,f,fi,m,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

Complement relation.

Complement relation.

Complement relation.

Complement relation.

Complement relation.

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1.7717 Relation: [e,f,fi,mi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \end{cases}$$

1.7718 Relation: [e,f,fi,mi,o]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.7719 Relation: [e,f,fi,mi,o,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.7720 Relation: [e,f,fi,mi,o,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7721 Relation: [e,f,fi,mi,o,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.7722 Relation: [e,f,fi,mi,o,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o}_j - 1] \cup [\overline{o}_j + 1, \underline{o}_j + \underline{\ell}_j - \underline{\ell}_i - 1] \cup [\overline{o}_j + \underline{\ell}_j + 1, +\infty[& \text{if } \underline{\ell}_i < \underline{\ell}_j - 1 \wedge \underline{\ell}_i = 1 \\ [-\infty, \underline{o}_j - \underline{\ell}_i] \cup [\overline{o}_j + 1, \underline{o}_j + \underline{\ell}_j - \underline{\ell}_i - 1] \cup [\overline{o}_j + \underline{\ell}_j - \underline{\ell}_i + 1, \underline{o}_j + \underline{\ell}_j - 1] \cup [\overline{o}_j + \underline{\ell}_j + 1, +\infty[& \text{if } \underline{\ell}_i < \underline{\ell}_j - 1 \wedge \underline{\ell}_i > 1 \\ [-\infty, \underline{o}_j - 1] \cup [\overline{o}_j + \underline{\ell}_j + 1, +\infty[& \text{if } \underline{\ell}_i \leq \underline{\ell}_j \wedge \underline{\ell}_i \geq \underline{\ell}_j - 1 \wedge \underline{\ell}_i = 1 \\ [-\infty, \underline{o}_j - \underline{\ell}_i] \cup [\overline{o}_j + \underline{\ell}_j - \underline{\ell}_i + 1, \underline{o}_j + \underline{\ell}_j - 1] \cup [\overline{o}_j + \underline{\ell}_j + 1, +\infty[& \text{if } \underline{\ell}_i \geq \underline{\ell}_j - 1 \wedge \underline{\ell}_i > 1 \end{array} \right.$$

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, o_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, o_j - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, o_j + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, o_j - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\]-\infty, o_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, o_j - \ell_i] \cup [\overline{o_j} - \ell_i + 2, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

Complement relation.

$$\left. \begin{array}{ll}]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, o_j] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right\}$$

Complement relation.

$$\left. \begin{aligned} &] -\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i < \ell_j - 1 \\ &] -\infty, \underline{\underline{o_j}} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ &] -\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i > \ell_j \end{aligned} \right\}$$

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o}_j - 1] \cup [\overline{o}_j + 1, \underline{o}_j + \ell_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o}_j + \ell_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\ [-\infty, \underline{o}_j - 1] \cup [\overline{o}_j + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [-\infty, \underline{o}_j + \ell_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j - \ell_i + 1, \underline{o}_j - 1] \cup [\overline{o}_j + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

Complement relation.

Complement relation.

Complement relation.

Complement relation.

Complement relation.

Complement relation.

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1.7735 Relation: [e,f,fi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.7736 Relation: [e,f,fi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.7737 Relation: [e,f,fi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.7738 Relation: [e,f,fi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \end{array} \right.$$

1.7739 Relation: [e,f,fi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.7740 Relation: [e,f,fi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.7741 Relation: [e,f,fi,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.7742 Relation: [e,f,fi,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.7743 Relation: [e,f,fi,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.7744 Relation: [e,f,fi,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.7745 Relation: [e,f,fi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.7746 Relation: [e,f,fi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.7747 Relation: [e,f,fi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.7748 Relation: [e,f,m]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7749 Relation: [e,f,m,mi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7750 Relation: [e,f,m,mi,o]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 2] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - 2] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7751 Relation: [e,f,m,mi,o,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7752 Relation: [e,f,m,mi,o,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

Complement relation.

Complement relation.

Complement relation.

Complement relation.

Complement relation.

Complement relation.

1338

1.7764 Relation: [e,f,m,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.7765 Relation: [e,f,m,o]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.7766 Relation: [e,f,m,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.7767 Relation: [e,f,m,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.7768 Relation: [e,f,m,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.7769 Relation: [e,f,m,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.7770 Relation: [e,f,m,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.7771 Relation: [e,f,m,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.7772 Relation: [e,f,m,o,si]

Complement relation.

$$\left. \begin{aligned} &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\ &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{aligned} \right\}$$

1.7773 **Relation:** [e,f,m,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \neq \ell_j - 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.7774 Relation: [e,f,m,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.7775 **Relation:** [e,f,m,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \end{array} \right.$$

1.7776 Relation: [e,f,m,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.7777 Relation: [e,f,m,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \left. \begin{aligned} &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[\\ &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[\end{aligned} \right\} & \begin{aligned} & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \end{aligned} \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7778 Relation: [e,f,m,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \left. \begin{aligned} &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[\\ &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[\end{aligned} \right\} & \begin{aligned} & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ & \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \end{aligned} \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.7779 Relation: [e,f,m,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.7780 Relation: [e,f,mi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ \left. \begin{aligned} &]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\ &]-\infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\end{aligned} \right\} & \begin{aligned} & \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ & \text{if } \ell_i > \ell_j \end{aligned} \end{cases}$$

1.7781 Relation: [e,f,mi,o]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \left. \begin{aligned} &]-\infty, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\ &]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\end{aligned} \right\} & \begin{aligned} & \text{if } \ell_i = 1 \\ & \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \end{aligned} \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_i > 1 \end{cases}$$

1.7782 Relation: [e,f,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.7783 Relation: [e,f,mi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.7784 Relation: [e,f,mi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.7785 Relation: [e,f,mi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.7786 Relation: [e,f,mi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.7787 Relation: [e,f,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.7788 Relation: [e,f,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.7789 Relation: [e,f,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \neq \ell_j - 1 \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \end{array} \right.$$

1.7790 Relation: [e,f,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.7791 Relation: [e,f,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \end{array} \right.$$

1.7792 Relation: [e,f,mi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.7793 Relation: [e,f,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.7794 Relation: [e,f,mi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.7795 Relation: [e,f,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.7796 Relation: [e,f,o]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.7797 Relation: [e,f,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.7798 Relation: [e,f,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ [-\infty, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.7799 Relation: [e,f,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.7800 Relation: [e,f,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.7801 Relation: [e,f,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\]-\infty, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.7802 Relation: [e,f,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] -\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, o_j - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.7803 Relation: [e,f,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] -\infty, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.7804 Relation: [e,f,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \neq \ell_j - 1 \\]-\infty, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \end{cases}$$

1.7805 Relation: [e,f,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\]-\infty, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.7806 Relation: [e,f,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \end{cases}$$

1.7807 Relation: [e,f,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.7808 Relation: [e,f,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\]-\infty, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7809 Relation: [e,f,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.7810 Relation: [e,f,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.7811 Relation: [e,fi]

Complement relation.

$$\begin{cases}]-\infty, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.7812 Relation: [e,fi,m]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 2, +\infty[& \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.7813 Relation: [e,fi,m,mi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.7814 Relation: [e,fi,m,mi,o]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \ell_i > 1 \end{cases}$$

1.7815 Relation: [e,fi,m,mi,o,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7816 Relation: [e,fi,m,mi,o,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7817 Relation: [e,fi,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.7818 Relation: [e,fi,m,mi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, a_j - \ell_i - 1] \cup [\overline{a_j}, a_j + \ell_j - \ell_i] \cup [\overline{a_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, a_j - \ell_i - 1] \cup [\overline{a_j} + \ell_j - \ell_i + 1, \overline{a_j} - 1] \cup [\overline{a_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\]-\infty, a_j - \ell_i - 1] \cup [\overline{a_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.7819 Relation: [e,fi,m,mi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.7820 **Relation:** [e,fi,m,mi,o,s,si]

Complement relation.

$$\left. \begin{aligned} &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j > 1 \\ &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{aligned} \right\}$$

1.7821 Relation: [e,fi,m,mi,o,si]

Complement relation.

$$\left. \begin{aligned} &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i < \ell_j \\ &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{aligned} \right\}$$

1.7822 Relation: [e,fi,m,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i - 1[\cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i[\cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] -\infty, \underline{o_j} - 2[\cup [\underline{o_j} + 2, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i - 1[\cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1[\cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - \ell_i - 1[\cup [\underline{o_j} - \ell_i + 2, \underline{o_j}[\cup [\underline{o_j} + 2, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i - 1[\cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1[\cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}[\cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.7823 Relation: [e,fi,m,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 2, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

Complement relation.

Complement relation.

Complement relation.

Complement relation.

Complement relation.

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1.7829 Relation: [e,fi,m,o]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \neq \ell_j + 1 \end{cases}$$

1.7830 Relation: [e,fi,m,o,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{cases}$$

1.7831 Relation: [e,fi,m,o,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 2, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.7832 Relation: [e,fi,m,o,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.7833 Relation: [e,fi,m,o,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.7834 Relation: [e,fi,m,o,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7835 **Relation:** [e,fi,m,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.7836 Relation: [e,fi,m,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.7837 Relation: [e,fi,m,oi]

Complement relation.

$$\left. \begin{array}{l} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[\\ [-\infty, \underline{o_j} - 2] \cup [\overline{o_j}, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 2, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[\end{array} \right\} \quad \begin{array}{l} \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ \text{if } \ell_j = 1 \\ \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array}$$

1.7838 Relation: [e,fi,m,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 2, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.7839 Relation: [e,fi,m,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.7840 **Relation:** [e,fi,m,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.7841 Relation: [e,fi,m,s]

Complement relation.

$$\left. \begin{aligned} &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 2, +\infty[&& \text{if } \min(\ell_i, \ell_j) = 1 \\ &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[&& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[&& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{aligned} \right\}$$

1.7842 **Relation:** [e,fi,m,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.7843 **Relation:** [e,fi,m,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.7844 **Relation:** [e,fi,mi]

Complement relation.

$$\left. \begin{array}{l} \left\{ \begin{array}{l}]-\infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\]-\infty, o_j + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, o_j + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\end{array} \right. \\ \begin{array}{l} \text{if } \ell_i < \ell_j \\ \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \end{array} \right\}$$

1.7845 **Relation:** [e,fi,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.7846 **Relation:** [e,fi,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, o_j] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.7847 **Relation:** [e,fi,mi,o,oi,s]

Complement relation.

$$\left. \begin{aligned} &]-\infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + 1, o_j + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ &]-\infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ &]-\infty, o_j - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, o_j] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{aligned} \right\}$$

1.7848 **Relation:** [e,fi,mi,o,oi,s,si]

Complement relation.

$$\left. \begin{aligned} &]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i < \ell_j \\ &]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i > \ell_j + 1 \\ &]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{aligned} \right\}$$

1.7849 Relation: [e,fi,mi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.7850 Relation: [e,fi,mi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{\ell_j} - 1] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i \leq \underline{\ell_j} \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} + \underline{\ell_j} - \ell_i + 1, \underline{o_j} + \underline{\ell_j} - 1] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i > \underline{\ell_j} \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \underline{\ell_i}] \cup [\overline{o_j} - \ell_i + 2, \underline{o_j} + \underline{\ell_j} - 1] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i \neq \underline{\ell_j} \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.7851 Relation: [e,fi,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.7852 **Relation:** [e,fi,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.7853 Relation: [e,fi,mi,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7854 Relation: [e,fi,mi,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7855 Relation: [e,fi,mi,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.7856 Relation: [e,fi,mi,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.7857 Relation: [e,fi,mi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7858 Relation: [e,fi,mi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.7859 Relation: [e,fi,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.7860 Relation: [e,fi,o]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \neq \ell_j + 1 \end{array} \right.$$

1.7861 Relation: [e,fi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.7862 Relation: [e,fi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - \ell_i + 2, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.7863 Relation: [e,fi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.7864 Relation: [e,fi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.7865 Relation: [e,fi,o,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7866 Relation: [e,fi,o,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.7867 Relation: [e,fi,o,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.7868 Relation: [e,fi,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.7869 Relation: [e,fi,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - \ell_i + 2, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.7870 Relation: [e,fi,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.7871 Relation: [e,fi,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.7872 Relation: [e,fi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7873 Relation: [e,fi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.7874 Relation: [e,fi,si]

Complement relation.

$$\begin{cases}] - \infty, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.7875 Relation: [e,m]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \neq \ell_j \end{cases}$$

1.7876 Relation: [e,m,mi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \end{cases}$$

1.7877 Relation: [e,m,mi,o]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - 2] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7878 Relation: [e,m,mi,o,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7879 Relation: [e,m,mi,o,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7880 Relation: [e,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7881 Relation: [e,m,mi,o,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7882 Relation: [e,m,mi,o,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7883 Relation: [e,m,mi,o,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.7884 Relation: [e,m,mi,o,si]

Complement relation.

$$\left. \begin{aligned} & [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i < \ell_j \\ & [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ & [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ & [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ & [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{aligned} \right\}$$

1.7885 **Relation:** [e,m,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.7886 **Relation:** [e,m,mi,oi,s]

Complement relation.

$$\left. \begin{array}{l} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j + 1, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j + 1, +\infty[\end{array} \right\} \quad \begin{array}{l} \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ \text{if } \ell_i > \ell_j \end{array}$$

1.7887 **Relation:** [e,m,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.7888 Relation: [e,m,mi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, o_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.7889 Relation: [e,m,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.7890 **Relation:** [e,m,mi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.7891 **Relation:** [e,m,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, o_j + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.7892 Relation: [e,m,o]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7893 **Relation:** [e,m,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.7894 Relation: [e,m,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, o_j] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.7895 **Relation:** [e,m,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, o_j - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.7896 Relation: [e,m,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.7897 Relation: [e,m,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.7898 Relation: [e,m,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.7899 Relation: [e,m,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.7900 Relation: [e,m,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.7901 Relation: [e,m,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.7902 Relation: [e,m,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.7903 Relation: [e,m,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.7904 Relation: [e,m,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.7905 Relation: [e,m,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > 1 \end{array} \right.$$

1.7906 Relation: [e,m,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.7907 Relation: [e,mi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \end{array} \right.$$

1.7908 Relation: [e,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \underline{\ell_i}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] -\infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.7909 Relation: [e,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.7910 **Relation:** [e,mi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.7911 Relation: [e,mi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.7912 **Relation:** [e,mi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.7913 **Relation:** [e,mi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.7914 Relation: [e,mi,o,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.7915 Relation: [e,mi,o,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.7916 Relation: [e,mi,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7917 Relation: [e,mi,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7918 Relation: [e,mi,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.7919 Relation: [e,mi,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.7920 Relation: [e,mi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7921 Relation: [e,mi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j > 1 \end{cases}$$

1.7922 Relation: [e,mi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.7923 Relation: [e,o]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.7924 Relation: [e,o,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.7925 Relation: [e,o,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.7926 Relation: [e,o,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.7927 Relation: [e,o,oi,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.7928 Relation: [e,o,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\]-\infty, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.7929 Relation: [e,o,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.7930 Relation: [e,o,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.7931 Relation: [e,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.7932 Relation: [e,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.7933 Relation: [e,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.7934 Relation: [e,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.7935 Relation: [e,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7936 Relation: [e,s,si]

Complement relation.

$$] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[$$

1.7937 Relation: [e,si]

Complement relation.

$$\begin{cases}] - \infty, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.7938 Relation: [f]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.7939 Relation: [f,fi]

Complement relation.

$$\begin{cases}] - \infty, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \neq \ell_j \end{cases}$$

1.7940 Relation: [f,fi,m]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 2, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \ell_j > 1 \end{cases}$$

1.7941 Relation: [f,fi,m,mi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 2] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 2, \underline{o_j}] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.7942 Relation: [f,fi,m,mi,o]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 2] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

1.7943 Relation: [f,fi,m,mi,o,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.7944 Relation: [f,fi,m,mi,o,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{cases}$$

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

Complement relation.

$$\left. \begin{array}{l}] -\infty, o_j - 2] \cup [\overline{o_j} + 1, o_j + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\] -\infty, o_j - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, o_j + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\] -\infty, o_j - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\] -\infty, o_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\] -\infty, o_j - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\] -\infty, o_j - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 2, \underline{o_j}] \cup [\overline{o_j} + 2, +\infty[\\] -\infty, o_j - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, o_j] \cup [\overline{o_j} + \ell_j + 1, +\infty[\end{array} \right\} \begin{array}{l} \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \text{if } \ell_i = \ell_j \\ \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array}$$

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, o_j - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, o_j] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\]-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, o_j + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, o_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, o_j + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 2, o_j + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

Complement relation.

$$\left. \begin{array}{l}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\end{array} \right\} \begin{array}{l} \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\ \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array}$$

1.7954 Relation: [f,fi,m,mi,s]

Complement relation.

$]-\infty, o_j - 2] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[$	if $\ell_i < \ell_j - 1 \wedge \ell_i = 1$
$]-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, o_j - 1] \cup [\overline{o_j} + 1, o_j + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[$	if $\ell_i < \ell_j - 1 \wedge \ell_i > 1$
$]-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[$	if $\ell_i = \ell_j$
$]-\infty, o_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[$	if $\ell_i = \ell_j - 1 \wedge \ell_i = 1$
$]-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, o_j - 1] \cup [\overline{o_j} + 2, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[$	if $\ell_i = \ell_j - 1 \wedge \ell_i > 1$
$]-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 2, \underline{o_j}] \cup [\overline{o_j} + 2, +\infty[$	if $\ell_i > 1 \wedge \ell_j = 1$
$]-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, o_j + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, o_j + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[$	if $\ell_i > \ell_j \wedge \ell_j > 1$

1.7955 **Relation:** [f,fi,m,mi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty] & \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty] & \text{if } \ell_i = \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty] & \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty] & \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty] & \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty] & \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 2, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty] & \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.7956 **Relation:** [f,fi,m,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - 2] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 2] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 2, \underline{o_j} - 1] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.7957 Relation: [f,fi,m,o]

Complement relation.

$$\left. \begin{aligned} &]-\infty, \overline{o_j} - \ell_i - 1] \cup [\overline{o_j}, o_j + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ &]-\infty, \overline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = \ell_j \\ &]-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j \end{aligned} \right\}$$

1.7958 Relation: [f,fi,m,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.7959 Relation: [f,fi,m,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, o_j] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.7960 Relation: [f,fi,m,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_i - 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.7961 **Relation:** [f,fi,m,o,oi,si]

Complement relation.

$$\left. \begin{array}{l} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_i - 1, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[\end{array} \right\} \quad \begin{array}{l} \text{if } \ell_i < \ell_j - 1 \\ \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ \text{if } \ell_i > \ell_j + 1 \end{array}$$

1.7962 Relation: [f,fi,m,o,s]

Complement relation.

$$\left. \begin{array}{l}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[\\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[\\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[\end{array} \right\} \begin{array}{l} \text{if } \ell_i < \ell_j - 1 \\ \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \\ \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \end{array}$$

1.7963 **Relation:** [f,fi,m,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_j + \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

1.7964 Relation: [f,fi,m,o,si]

Complement relation.

$$\left. \begin{aligned} &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ &] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_j + \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{aligned} \right\}$$

1.7970 **Relation:** [f,fi,m,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 2, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.7971 Relation: [f,fi,m,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.7972 Relation: [f,fi,mi]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.7973 **Relation:** [f,fi,mi,o]

Complement relation.

$$\left. \begin{aligned} & [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ & [-\infty, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ & [-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ & [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ & [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{aligned} \right\}$$

1.7974 Relation: [f,fi,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.7980 Relation: [f,fi,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - \ell_i + 2, \underline{o_j} - 1] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - \ell_j + \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - 2\ell_i + 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.7981 Relation: [f,fi,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.7982 Relation: [f,fi,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_j + \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.7983 Relation: [f,fi,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_j + \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.7984 Relation: [f,fi,mi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.7985 Relation: [f,fi,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

Complement relation.

Complement relation.

1.7987 Relation: [f,fi,mi,si]

Complement relation.

1.7988 Relation: [f,fi,o]

Complement relation.

1.7989 **Relation:** [f,fi,o,oi]

Complement relation.

1.7990 Relation: [f,fi,o,oi,s]

Complement relation.

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1.7991 Relation: [f,fi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] -\infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \end{array} \right.$$

1.7992 Relation: [f,fi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] -\infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\] -\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.7993 Relation: [f,fi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] -\infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \end{array} \right.$$

1.7994 Relation: [f,fi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] -\infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - \ell_j + \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.7995 Relation: [f,fi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] -\infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - \ell_j + \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.7996 Relation: [f,fi,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.7997 Relation: [f,fi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_j + \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.7998 Relation: [f,fi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} + 2\ell_j - 2\ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.7999 Relation: [f,fi,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.8000 Relation: [f,fi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.8001 Relation: [f,fi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.8002 Relation: [f,fi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.8003 Relation: [f,m]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.8004 Relation: [f,m,mi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.8005 Relation: [f,m,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 2] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.8006 Relation: [f,m,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.8013 **Relation:** [f,m,mi,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \end{cases}$$

1.8014 Relation: [f,m,mi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.8015 Relation: [f,m,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \end{array} \right.$$

1.8016 Relation: [f,m,mi,oi,si]

Complement relation.

$$\left. \begin{aligned} &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{aligned} \right\}$$

1.8017 Relation: [f,m,mi,s]

Complement relation.

$$\left. \begin{array}{l} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\end{array} \right\} \quad \begin{array}{l} \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ \text{if } \ell_i \geq \ell_j \end{array}$$

1.8018 Relation: [f,m,mi,s,si]

Complement relation.

$$\left. \begin{array}{l}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\end{array} \right\} \begin{array}{l} \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \text{if } \ell_i = \ell_j \\ \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array}$$

1.8019 Relation: [f,m,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.8020 Relation: [f,m,o]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.8021 Relation: [f,m,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.8022 Relation: [f,m,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, o_j] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.8023 Relation: [f,m,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 2] \cup [\overline{o_j} + 2\ell_j - 2\ell_i, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.8024 Relation: [f,m,o,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.8025 Relation: [f,m,o,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 2\ell_j - 2\ell_i, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.8026 Relation: [f,m,o,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 2\ell_j - 2\ell_i, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.8027 Relation: [f,m,o,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.8028 Relation: [f,m,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \end{cases}$$

1.8029 Relation: [f,m,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 2\ell_j - \ell_i - 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.8030 Relation: [f,m,oi,s,si]

Complement relation.

$$\left. \begin{array}{l}] -\infty, o_j - \ell_i - 1] \cup [\overline{o_j} + 1, o_j + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[\\] -\infty, o_j - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, o_j + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[\\] -\infty, o_j - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[\\] -\infty, o_j - \ell_i - 1] \cup [\overline{o_j} + 2\ell_j - 2\ell_i, +\infty[\\] -\infty, o_j - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[\end{array} \right\} \begin{array}{l} \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \ell_i > 1 \end{array}$$

1.8031 Relation: [f,m,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{\sigma_j} - \ell_i - 1] \cup [\overline{\sigma_j} - \ell_i + 1, \underline{\sigma_j} + \ell_j - \ell_i - 1] \cup [\overline{\sigma_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\ [-\infty, \underline{\sigma_j} - \ell_i - 1] \cup [\overline{\sigma_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{\sigma_j} - \ell_i - 1] \cup [\overline{\sigma_j} - \ell_i + 1, \underline{\sigma_j}] \cup [\overline{\sigma_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\ [-\infty, \underline{\sigma_j} - \ell_i - 1] \cup [\overline{\sigma_j} - \ell_i + 1, \underline{\sigma_j} - 1] \cup [\overline{\sigma_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.8032 Relation: [f,m,s]

Complement relation.

$$\left. \begin{array}{l}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[\\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[\\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[\\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 2\ell_j - 2\ell_i, +\infty[\\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[\end{array} \right\} \begin{array}{l} \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \end{array}$$

1.8033 Relation: [f,m,s,si]

Complement relation.

$$\left. \begin{array}{l} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[\end{array} \right\} \quad \begin{array}{l} \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ \text{if } \ell_i = \ell_j \\ \text{if } \ell_i = \ell_j - 1 \wedge \ell_i = 1 \\ \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\ \text{if } \ell_i > \ell_j \end{array}$$

1.8034 Relation: [f,m,si]

Complement relation.

$$\left. \begin{aligned} &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \\ &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j \\ &]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{aligned} \right\}$$

1.8035 **Relation:** [f,mi]

Complement relation.

$$\left. \begin{aligned} &] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ &] - \infty, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ &] - \infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{aligned} \right\}$$

1.8036 Relation: [f,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.8037 Relation: [f,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.8038 Relation: [f,mi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.8039 Relation: [f,mi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.8040 Relation: [f,mi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.8041 Relation: [f,mi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{\ell_j} - \ell_i - 1] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i < \underline{\ell_j} - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \underline{\ell_j} - \ell_i - 1] \cup [\overline{o_j} + \underline{\ell_j} - \ell_i + 1, \underline{o_j} + \underline{\ell_j} - 1] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i < \underline{\ell_j} - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \underline{\ell_j} - \ell_i + 1, \underline{o_j} + \underline{\ell_j} - 1] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i = \underline{\ell_j} - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \underline{\ell_j} - \ell_i, \underline{o_j} + \underline{\ell_j} - 1] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i \geq \underline{\ell_j} \wedge \ell_i > 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \underline{\ell_j} + 1] \cup [\overline{o_j} + \underline{\ell_j} + 1, +\infty[& \text{if } \ell_i \geq \underline{\ell_j} - 1 \wedge \min(\ell_i, \underline{\ell_j}) = 1 \end{array} \right.$$

1.8042 Relation: [f,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 2\ell_j - 2\ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.8043 **Relation:** [f,mi,o,si]

Complement relation.

$$\left. \begin{aligned} & [-\infty, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ & [-\infty, \underline{o_j} - \ell_i] \cup [\underline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ & [-\infty, \underline{o_j}] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i = 1 \\ & [-\infty, \underline{o_j} - \ell_i] \cup [\underline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ & [-\infty, \underline{o_j} + \ell_j - 2] \cup [\underline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{aligned} \right\}$$

1.8044 Relation: [f,mi,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \end{cases}$$

1.8045 **Relation:** [f,mi,oi,s]

Complement relation.

$$\left. \begin{aligned} &] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i < \ell_j - 1 \\ &] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i = \ell_j - 1 \\ &] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i \geq \ell_j \end{aligned} \right\}$$

1.8046 Relation: [f,mi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o}_j - 1] \cup [\overline{o}_j + 1, \underline{o}_j + \ell_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\]-\infty, \underline{o}_j] \cup [\overline{o}_j + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\]-\infty, \underline{o}_j - 1] \cup [\overline{o}_j + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \end{array} \right.$$

1.8047 Relation: [f,mi,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.8048 Relation: [f,mi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_j + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.8049 Relation: [f,mi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.8050 Relation: [f,mi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.8051 Relation: [f,o]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, +\infty[& \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.8052 Relation: [f,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] -\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] -\infty, +\infty[& \text{if } \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.8053 Relation: [f,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \\] -\infty, +\infty[& \text{if } \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.8054 Relation: [f,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] -\infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \\] -\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.8055 Relation: [f,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \wedge \ell_i > 1 \\] -\infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] -\infty, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.8056 Relation: [f,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j - 1 \\] -\infty, +\infty[& \text{if } \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.8057 Relation: [f,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 2\ell_j - 2\ell_i, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.8058 Relation: [f,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} + \ell_j - 2] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.8059 Relation: [f,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, +\infty[& \text{if } \ell_j = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \end{array} \right.$$

1.8060 Relation: [f,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j - 1 \\] - \infty, +\infty[& \text{if } \ell_j = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.8061 Relation: [f,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j - 1 \wedge \ell_i \neq \ell_j \end{array} \right.$$

1.8062 Relation: [f,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j - 1 \\] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i \geq \ell_j - 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.8063 Relation: [f,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}-1] \cup [\overline{o_j}+1, \underline{o_j}+\ell_j-\ell_i-1] \cup [\overline{o_j}+\ell_j-\ell_i+1, +\infty[& \text{if } \ell_i < \ell_j-1 \\]-\infty, \underline{o_j}-1] \cup [\overline{o_j}+\ell_j-\ell_i+1, +\infty[& \text{if } \ell_i = \ell_j-1 \\]-\infty, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.8064 Relation: [f,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}-1] \cup [\overline{o_j}+1, \underline{o_j}+\ell_j-\ell_i-1] \cup [\overline{o_j}+\ell_j-\ell_i+1, +\infty[& \text{if } \ell_i < \ell_j-1 \\]-\infty, +\infty[& \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j}-1] \cup [\overline{o_j}+\ell_j-\ell_i+1, +\infty[& \text{if } \ell_i = \ell_j-1 \\]-\infty, \underline{o_j}-1] \cup [\overline{o_j}+1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.8065 Relation: [f,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}+\ell_j-\ell_i-1] \cup [\overline{o_j}+\ell_j-\ell_i+1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, +\infty[& \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j}-1] \cup [\overline{o_j}+1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.8066 Relation: [fi]

Complement relation.

$$\begin{cases}]-\infty, +\infty[& \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j}+\ell_j-\ell_i-1] \cup [\overline{o_j}+\ell_j-\ell_i+1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.8067 Relation: [fi,m]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}-\ell_i-1] \cup [\overline{o_j}-\ell_i+1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j}-\ell_i-1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j+1 \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j}-\ell_i-1] \cup [\overline{o_j}-\ell_i+1, \underline{o_j}+\ell_j-\ell_i-1] \cup [\overline{o_j}+\ell_j-\ell_i+1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j}-\ell_i-1] \cup [\overline{o_j}+\ell_j-\ell_i+1, +\infty[& \text{if } \ell_i > \ell_j+1 \wedge \ell_j = 1 \end{cases}$$

1.8068 Relation: [fi,m,mi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}-\ell_i-1] \cup [\overline{o_j}-\ell_i+1, \underline{o_j}+\ell_j-1] \cup [\overline{o_j}+\ell_j+1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j}-\ell_i-1] \cup [\overline{o_j}, \underline{o_j}+\ell_j-1] \cup [\overline{o_j}+\ell_j+1, +\infty[& \text{if } \ell_i \leq \ell_j+1 \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j}-\ell_i-1] \cup [\overline{o_j}-\ell_i+1, \underline{o_j}+\ell_j-\ell_i-1] \cup [\overline{o_j}+\ell_j-\ell_i+1, \underline{o_j}+\ell_j-1] \cup [\overline{o_j}+\ell_j+1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j}-\ell_i-1] \cup [\overline{o_j}-\ell_i+2, \underline{o_j}] \cup [\overline{o_j}+2, +\infty[& \text{if } \ell_i > \ell_j+1 \wedge \ell_j = 1 \end{cases}$$

1.8069 Relation: [fi,m,mi,o]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j}-\ell_i-1] \cup [\overline{o_j}, \underline{o_j}+\ell_j-1] \cup [\overline{o_j}+\ell_j+1, +\infty[& \text{if } \ell_i \leq \ell_j+1 \\]-\infty, \underline{o_j}-\ell_i-1] \cup [\overline{o_j}+\ell_j-\ell_i+1, \underline{o_j}+\ell_j-1] \cup [\overline{o_j}+\ell_j+1, +\infty[& \text{if } \ell_i > \ell_j+1 \end{cases}$$

1.8070 Relation: [fi,m,mi,o,oi]

Complement relation.

$$\begin{cases}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.8071 Relation: [fi,m,mi,o,oi,s]

Complement relation.

$$\begin{cases}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.8072 Relation: [fi,m,mi,o,oi,s,si]

Complement relation.

$$\begin{cases}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.8073 Relation: [fi,m,mi,o,oi,si]

Complement relation.

$$\begin{cases}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.8074 Relation: [fi,m,mi,o,s]

Complement relation.

$$\begin{cases}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.8075 Relation: [fi,m,mi,o,s,si]

Complement relation.

$$\begin{cases}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{cases}$$

1.8081 Relation: [fi,m,mi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 2, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.8082 Relation: [fi,m,mi,s,si]

Complement relation.

$$\left. \begin{array}{l}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\end{array} \right\} \begin{array}{l} \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ \text{if } \ell_i = 1 \wedge \ell_j > 1 \\ \text{if } \ell_i = \ell_j \\ \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array}$$

1.8083 **Relation:** [fi,m,mi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.8084 Relation: [fi,m,o]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.8085 Relation: [fi,m,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o}_j - \ell_i - 1] \cup [\underline{o}_j, \underline{o}_j + \ell_j - \ell_i] \cup [\underline{o}_j + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\underline{o}_j, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\underline{o}_j + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\underline{o}_j + \ell_j - \ell_i + 1, \underline{o}_j] \cup [\underline{o}_j + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\underline{o}_j, \underline{o}_j] \cup [\underline{o}_j + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.8086 Relation: [fi,m,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 2, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.8087 Relation: [fi,m,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 2] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_j + \ell_i, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.8088 Relation: [fi,m,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_i - 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.8089 Relation: [fi,m,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.8090 Relation: [fi,m,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.8091 Relation: [fi,m,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.8092 Relation: [fi,m,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j - \ell_i + 1, \underline{o}_j + \ell_j - \ell_i] \cup [\overline{o}_j + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j - \ell_i + 1, \underline{o}_j + \ell_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j - \ell_i + 1, \underline{o}_j] \cup [\overline{o}_j + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \end{array} \right.$$

1.8093 Relation: [fi,m,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\underline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j}], +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\underline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\underline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\underline{o_j} - \ell_i + 2, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \ell_i \neq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.8094 Relation: [fi,m,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + 2\ell_j - 2\ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.8095 Relation: [fi,m,oi,si]

Complement relation.

$$\left. \begin{array}{l} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_i - 1, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[\\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[\end{array} \right\} \quad \begin{array}{l} \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\ \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array}$$

1.8096 Relation: [fi,m,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 2, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.8097 Relation: [fi,m,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.8098 Relation: [fi,m,si]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_i - 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.8099 Relation: [fi,mi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.8100 Relation: [fi,mi,o]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o}_j + \ell_j - 1] \cup [\overline{o}_j + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\]-\infty, \underline{o}_j - \ell_i] \cup [\overline{o}_j, \underline{o}_j + \ell_j - 1] \cup [\overline{o}_j + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \\]-\infty, \underline{o}_j - \ell_i] \cup [\overline{o}_j + \ell_j - \ell_i + 1, \underline{o}_j + \ell_j - 1] \cup [\overline{o}_j + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.8101 Relation: [fi,mi,o,oi]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.8102 Relation: [fi,mi,o,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, o_i] \cup [\overline{o_j} + \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.8103 Relation: [fi,mi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - 2\ell_i + 2] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.8104 Relation: [fi,mi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.8105 Relation: [fi,mi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.8106 Relation: [fi,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + 2\ell_j - 2\ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.8107 Relation: [fi,mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - 2\ell_i + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.8108 Relation: [fi,mi,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

Complement relation.

$$\left. \begin{aligned} &]-\infty, \underline{o_j}-1] \cup [\underline{o_j}+1, \underline{o_j}+\ell_j-\ell_i] \cup [\overline{o_j}+\ell_j+1, +\infty[&& \text{if } \ell_i < \ell_j \\ &]-\infty, \underline{o_j}] \cup [\overline{o_j}+\ell_j+1, +\infty[&& \text{if } \ell_i = \ell_j \\ &]-\infty, \underline{o_j}+\ell_j-\ell_i-1] \cup [\overline{o_j}+\ell_j-\ell_i+1, \underline{o_j}] \cup [\overline{o_j}+\ell_j+1, +\infty[&& \text{if } \ell_i > \ell_j \end{aligned} \right\}$$

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o}_j - 1] \cup [\overline{o}_j + 1, \underline{o}_j + \ell_j - \ell_i] \cup [\overline{o}_j + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [-\infty, \underline{o}_j + \ell_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j - \ell_i + 1, \underline{o}_j - 1] \cup [\overline{o}_j + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\ [-\infty, \underline{o}_j + 2\ell_j - 2\ell_i] \cup [\overline{o}_j + \ell_j + 1, +\infty[& \text{if } \ell_j \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \end{array} \right.$$

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - 2] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} + \ell_j - 2\ell_i + 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

Complement relation.

$$\left. \begin{aligned} &]-\infty, \underline{o_j}-1] \cup [\overline{o_j}+1, \underline{o_j}+\ell_j-1] \cup [\overline{o_j}+\ell_j+1, +\infty[&& \text{if } \ell_i < \ell_j \\ &]-\infty, \underline{o_j}+\ell_j-1] \cup [\overline{o_j}+\ell_j+1, +\infty[&& \text{if } \ell_i = \ell_j \\ &]-\infty, \underline{o_j}+\ell_j-\ell_i-1] \cup [\overline{o_j}+\ell_j-\ell_i+1, \underline{o_j}+\ell_j-1] \cup [\overline{o_j}+\ell_j+1, +\infty[&& \text{if } \ell_i > \ell_j \end{aligned} \right\}$$

Complement relation.

$$\left. \begin{aligned} &] -\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i < \ell_j \\ &] -\infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i = \ell_j \\ &] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j = 1 \\ &] -\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ &] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ &] -\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[&& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{aligned} \right\}$$

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_j > 1 \\ [-\infty, \underline{o_j} + 2\ell_j - 2\ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \underline{\ell_i} + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \end{array} \right.$$

1.8115 Relation: [fi,o]

Complement relation.

$$\begin{cases}]-\infty, +\infty[& \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.8116 Relation: [fi,o,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, +\infty[& \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.8117 Relation: [fi,o,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - \ell_i + 2, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.8118 Relation: [fi,o,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.8119 Relation: [fi,o,oi,si]

Complement relation.

$$\begin{cases}]-\infty, +\infty[& \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.8120 Relation: [fi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \end{array} \right.$$

1.8121 Relation: [fi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.8122 Relation: [fi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, +\infty[& \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{array} \right.$$

1.8123 Relation: [fi,oi]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, +\infty[& \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.8124 Relation: [fi,oi,s]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} - \ell_i + 2, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{array} \right.$$

1.8125 Relation: [fi,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \leq \ell_j + 1 \wedge \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \\] - \infty, \underline{o_j} + 2\ell_j - 2\ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i \leq \ell_j + 1 \wedge \ell_i > 1 \wedge \ell_j > 1 \end{array} \right.$$

1.8126 Relation: [fi,oi,si]

Complement relation.

$$\begin{cases}] - \infty, +\infty[& \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j + 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.8127 Relation: [fi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.8128 Relation: [fi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.8129 Relation: [fi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = \ell_j + 1 \\] - \infty, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} + \ell_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j + 1 \end{cases}$$

1.8130 Relation: [m]

Complement relation.

$$] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[$$

1.8131 Relation: [m,mi]

Complement relation.

$$] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[$$

1.8132 Relation: [m,mi,o]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.8133 **Relation:** [m,mi,o,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.8134 Relation: [m,mi,o,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j + 1, \underline{o}_j + \ell_j - \ell_i] \cup [\overline{o}_j + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j - \ell_i, o_j] \cup [\overline{o}_j + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.8135 Relation: [m,mi,o,oi,s,si]

Complement relation.

$$\left. \begin{aligned} &] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ &] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ &] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{aligned} \right\}$$

1.8136 **Relation:** [m,mi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\]-\infty, o_j - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, o_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{array} \right.$$

1.8137 Relation: [m,mi,o,s]

Complement relation.

$$\left\{ \begin{array}{ll}]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{array} \right.$$

1.8138 Relation: [m,mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j + 1, \underline{o}_j + \ell_j - 1] \cup [\overline{o}_j + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j, \underline{o}_j + \ell_j - 1] \cup [\overline{o}_j + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j - \ell_i + 1, \underline{o}_j - 1] \cup [\overline{o}_j + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o}_j - \ell_i - 1] \cup [\overline{o}_j + \ell_j - \ell_i, \underline{o}_j - 1] \cup [\overline{o}_j + 1, \underline{o}_j + \ell_j - 1] \cup [\overline{o}_j + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.8139 Relation: [m,mi,o,si]

Complement relation.

$$\left. \begin{array}{l}] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\\] -\infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[\end{array} \right\} \begin{array}{l} \text{if } \ell_i \leq \ell_j \\ \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array}$$

1.8147 Relation: [m,o]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.8148 Relation: [m,o,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.8149 Relation: [m,o,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.8150 Relation: [m,o,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - 2] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - 2] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.8151 Relation: [m,o,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.8152 Relation: [m,o,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.8153 Relation: [m,o,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{\sigma_j} + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{\sigma_j}, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{\sigma_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{\sigma_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.8154 Relation: [m,o,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{\sigma_j}, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{\sigma_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{\sigma_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.8155 Relation: [m,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{\sigma_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{\sigma_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{\sigma_j} - \ell_i + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{\sigma_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{\sigma_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.8156 Relation: [m,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{\sigma_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{\sigma_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{\sigma_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{\sigma_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{\sigma_j} - \ell_i + 1, +\infty[& \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{\sigma_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{\sigma_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.8157 Relation: [m,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{\sigma_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{\sigma_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{\sigma_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{\sigma_j}, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{\sigma_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{\sigma_j} - \ell_i + 1, \underline{o_j}] \cup [\overline{\sigma_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{\sigma_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{\sigma_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.8158 Relation: [m,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{\sigma_j}, +\infty[& \text{if } \ell_i = 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{\sigma_j} - \ell_i + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{\sigma_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{\sigma_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{\sigma_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.8159 Relation: [m,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.8160 Relation: [m,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \ell_i > 1 \end{cases}$$

1.8161 Relation: [m,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - \ell_i - 1] \cup [\overline{o_j} - \ell_i + 1, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.8162 Relation: [mi]

Complement relation.

$$] - \infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[$$

1.8163 Relation: [mi,o]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.8164 Relation: [mi,o,oi]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.8165 Relation: [mi,o,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.8166 Relation: [mi,o,oi,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [-\infty, \underline{o_j}] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, o_j] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 2, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, o_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.8167 **Relation:** [mi,o,oi,si]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, o_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.8168 Relation: [mi,o,s]

Complement relation.

$$\left. \begin{aligned} &] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ &] -\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_j = 1 \\ &] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{aligned} \right\}$$

1.8169 Relation: [mi,o,s,si]

Complement relation.

$$\left\{ \begin{array}{ll} [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\ [-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\ [-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\ [-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.8170 Relation: [mi,o,si]

Complement relation.

$$\left\{ \begin{array}{ll}] -\infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] -\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] -\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, o_j - 1] \cup [\overline{o_j} + 1, o_j + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{array} \right.$$

1.8171 Relation: [mi,oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.8172 Relation: [mi,oi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.8173 Relation: [mi,oi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.8174 Relation: [mi,oi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.8175 Relation: [mi,s]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i < \ell_j \\] - \infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.8176 Relation: [mi,s,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i = \ell_j \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \ell_j > 1 \end{cases}$$

1.8177 Relation: [mi,si]

Complement relation.

$$\begin{cases}] - \infty, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i \leq \ell_j \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\] - \infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - 1] \cup [\overline{o_j} + \ell_j + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.8178 Relation: [o]

Complement relation.

$$\begin{cases}] - \infty, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\] - \infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.8179 Relation: [o,oi]

Complement relation.

$$\begin{cases}]-\infty, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.8180 Relation: [o,oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, +\infty[& \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.8181 Relation: [o,oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.8182 Relation: [o,oi,si]

Complement relation.

$$\begin{cases}]-\infty, +\infty[& \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.8183 Relation: [o,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, +\infty[& \text{if } \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.8184 Relation: [o,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.8185 Relation: [o,si]

Complement relation.

$$\begin{cases}]-\infty, +\infty[& \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j}, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j} - \ell_i] \cup [\overline{o_j} + \ell_j - \ell_i, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \end{cases}$$

1.8186 Relation: [oi]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, +\infty[& \text{if } \min(\ell_i, \ell_j) = 1 \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.8187 Relation: [oi,s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j > 1 \\]-\infty, +\infty[& \text{if } \ell_j = 1 \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \geq \ell_j \wedge \ell_i > 1 \wedge \ell_j > 1 \end{cases}$$

1.8188 Relation: [oi,s,si]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i < \ell_j \wedge \ell_i > 1 \\]-\infty, +\infty[& \text{if } \ell_i = 1 \wedge \ell_j = 1 \\]-\infty, \underline{o_j}] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i = \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \wedge \ell_j > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \neq \ell_j \wedge \min(\ell_i, \ell_j) = 1 \end{cases}$$

1.8189 Relation: [oi,si]

Complement relation.

$$\begin{cases}]-\infty, +\infty[& \text{if } \ell_i = 1 \\]-\infty, \underline{o_j} + \ell_j - \ell_i] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i \leq \ell_j \wedge \ell_i > 1 \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + \ell_j, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$

1.8190 Relation: [s]

Complement relation.

$$\begin{cases}]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i < \ell_j \\]-\infty, +\infty[& \text{if } \ell_i \geq \ell_j \end{cases}$$

1.8191 Relation: [s,si]

Complement relation.

$$\begin{cases}]-\infty, +\infty[& \text{if } \ell_i = \ell_j \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i \neq \ell_j \end{cases}$$

1.8192 Relation: [si]

Complement relation.

$$\begin{cases}]-\infty, +\infty[& \text{if } \ell_i \leq \ell_j \\]-\infty, \underline{o_j} - 1] \cup [\overline{o_j} + 1, +\infty[& \text{if } \ell_i > \ell_j \end{cases}$$