```
L[ijx \ J\overline{X} \ \overline{IX} \ \overline{IJ}] \leftarrow \max \\ A[j \ i] \quad L[ijx \ \overline{JX} \ \overline{IX} \ \overline{IJ}] \leftarrow \max \\ A[i \ j] \quad L[ijx \ \overline{JX} \ \overline{IX} \ \overline{IJ}] \leftarrow \max \\ A[i \ j] \quad L[ijx \ \overline{JX} \ \overline{IX} \ \overline{IJ}] \leftarrow \max \\ A[j \ i] \quad R[ijx \ \overline{JX} \ \overline{IX} \ \overline{IJ}] \leftarrow \max \\ A[j \ i] \quad R[ijx \ \overline{JX} \ \overline{IX} \ \overline{IJ}] \leftarrow \max \\ A[i \ j] \quad R[ijx \ \overline{JX} \ \overline{IX} \ \overline{IJ}] \leftarrow \max \\ A[i \ j] \quad R[ijx \ \overline{JX} \ \overline{IX} \ \overline{IJ}] \leftarrow \max \\ A[i \ j] \quad R[ijx \ \overline{JX} \ \overline{IX} \ \overline{IJ}] \leftarrow \max \\ A[i \ j] \quad R[ijx \ \overline{JX} \ \overline{IX} \ \overline{IJ}] \leftarrow \max \\ A[i \ j] \quad R[ijx \ \overline{JX} \ \overline{IX} \ \overline{IJ}] \leftarrow \max \\ A[i \ j] \quad R[ijx \ \overline{JX} \ \overline{IX} \ \overline{IJ}] \leftarrow \max \\ A[i \ j] \quad R[ijx \ \overline{JX} \ \overline{IX} \ \overline{IJ}] \leftarrow \max \\ A[i \ j] \quad R[ijx \ \overline{JX} \ \overline{IX} \ \overline{IJ}] \leftarrow \max \\ A[i \ j] \quad R[ijx \ \overline{JX} \ \overline{IX} \ \overline{IJ}] \leftarrow \max \\ A[i \ j] \quad R[ijx \ \overline{JX} \ \overline{IX} \ \overline{IJ}] \leftarrow \max \\ A[i \ j] \quad R[ijx \ \overline{JX} \ \overline{IX} \ \overline{IJ}] \leftarrow \max \\ A[i \ j] \quad R[ijx \ \overline{JX} \ \overline{IX} \ \overline{IJ}] \leftarrow \max \\ A[i \ j] \quad R[ijx \ \overline{JX} \ \overline{IX} \ \overline{IJ}] \leftarrow \max \\ A[i \ j] \quad R[ijx \ \overline{JX} \ \overline{JX} \ \overline{IX} \ \overline{IJ}] \leftarrow \max \\ A[i \ j] \quad R[ijx \ \overline{JX} \ \overline{JX} \ \overline{JX} \ \overline{IX} \ \overline{IJ}] \leftarrow \max \\ A[i \ j] \quad R[ijx \ \overline{JX} \ \overline{X} \
```

$$\begin{split} & \underbrace{N[ijx \ .X \ .\overline{X} \ \overline{IJ}]} \leftarrow \max \\ & A[x \ i] \quad N[ijx \ .\overline{X} \ .\overline{X} \ \overline{IJ}] \\ & \underbrace{N[ijx \ .\overline{X} \ .X \ \overline{IJ}]} \leftarrow \max \\ & A[x \ j] \quad N[ijx \ .\overline{X} \ .\overline{X} \ \overline{IJ}] \leftarrow \max \\ & A[j \ i] \quad N[ijx \ \overline{JX} \ \overline{IX} \ \overline{IJ}] \leftarrow \max \\ & A[j \ i] \quad N[ijx \ \overline{JX} \ \overline{IX} \ \overline{IJ}] \leftarrow \max \\ & A[i \ j] \quad N[ijx \ \overline{JX} \ \overline{IX} \ \overline{IJ}] \leftarrow \max \\ & A[i \ j] \quad N[ijx \ \overline{JX} \ \overline{IX} \ \overline{IJ}] \leftarrow \max \\ & A[i \ j] \quad N[ijx \ \overline{JX} \ \overline{IX} \ \overline{IJ}] \leftarrow \max \\ & A[i \ j] \quad N[ijx \ \overline{JX} \ \overline{IX} \ \overline{IJ}] \leftarrow \max \\ & A[i \ j] \quad N[ijx \ \overline{JX} \ \overline{IX} \ \overline{IJ}] \leftarrow \max \\ & A[i \ j] \quad N[ijx \ \overline{JX} \ \overline{IX} \ \overline{IJ}] \leftarrow \max \\ & A[i \ j] \quad N[ijx \ \overline{JX} \ \overline{IX} \ \overline{IJ}] \leftarrow \max \\ & A[i \ j] \quad N[ijx \ \overline{JX} \ \overline{IX} \ \overline{IJ}] \leftarrow \max \\ & A[i \ j] \quad N[ijx \ \overline{JX} \ \overline{IX} \ \overline{IJ}] \leftarrow \max \\ & A[i \ j] \quad N[ijx \ \overline{JX} \ \overline{IX} \ \overline{IJ}] \leftarrow \max \\ & A[i \ j] \quad N[ijx \ \overline{JX} \ \overline{IX} \ \overline{IJ}] \leftarrow \max \\ & A[i \ j] \quad N[ijx \ \overline{JX} \ \overline{IX} \ \overline{IJ}] \leftarrow \max \\ & A[i \ j] \quad N[ijx \ \overline{JX} \ \overline{JX} \ \overline{IX} \ \overline{IJ}] \rightarrow \max \\ & A[i \ j] \quad N[ijx \ \overline{JX} \ \overline{X} \ \overline$$

$$\begin{split} I[ij\ F\ I] &\leftarrow \max \\ A[i\ j] \quad I[ij\ F\ \overline{I}] \\ I[ij\ J\ F] &\leftarrow \max \\ A[j\ i] \quad I[ij\ \overline{J}\ F] \end{split}$$

```
X[ijx . X . \overline{X} F] \leftarrow \max
A[x i] \quad I[ij . .]
X[ijx . \overline{X} . \overline{X} I \overline{J}] \leftarrow \max
A[i x] \quad I[ij . .]
X[ijx . \overline{X} . X F] \leftarrow \max
A[x j] \quad I[ij . .]
X[ijx . \overline{X} . \overline{X} \overline{I} J] \leftarrow \max
A[j x] \quad I[ij . .]
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 \begin{cases} I[i \ i+1 \ F \ F] & I[i+1 \ j \ \overline{F} \ F] \\ \max_{k \in (i,j)} \\ I[ik \ F \ I] & I[kj \ . \ .] \\ BLRN \cdot [ikj \ F \ I\overline{J} \ I\overline{K}] & I[kj \ . \ .] \\ RN \cdot [ikl \ F \ I\overline{L} \ I\overline{K}] & I[kl \ . \ .] & \cdot LNX[ljk \ .\overline{K} \ .\overline{L}.] \\ BLRN \cdot [ikl \ F \ I\overline{L} \ I\overline{K}] & I[kl \ . \ .] & I[lj \ . \ .] \end{cases} 
 \begin{cases} RNX \cdot [ikl \ F \ .\overline{K} \ I\overline{L}] & I[kk \ . \ .] & \cdot LN[kjl \ .\overline{L} \ .\overline{K}.] \\ RNX \cdot [ilk \ F \ .\overline{K} \ I\overline{L}] & I[kk \ . \ .] & \cdot LN[kjl \ .\overline{L} \ .\overline{K}.] \end{cases} 
 \begin{cases} I[ik \ \overline{F} \ .] & I[kj \ J \ F] \\ I[ik \ \overline{F} \ .] & \cdot BLRN[kjl \ J\overline{L} \ F \ \overline{KJ}] \\ \max_{l \in (i,k)} \\ RNX \cdot [ilk \ \overline{F} \ .\overline{K} \ .\overline{L}] & I[lk \ . \ .] & \cdot LN[kjl \ J\overline{L} \ F \ \overline{KJ}] \\ I[il \ \overline{F} \ .] & I[lk \ . \ .] & \cdot BLRN[kjl \ J\overline{L} \ F \ \overline{KJ}] \\ \max_{l \in (k,j)} \\ RNX \cdot [ikl \ \overline{F} \ .\overline{L} \ .\overline{K}] & I[kl \ . \ .] & \cdot LNX[ljk \ .\overline{K} \ F \ \overline{LJ}] \end{cases}
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$$\begin{split} &L[ijx \ \overline{JX} \ \overline{IX} \ \overline{IJ}] \leftarrow \max_{k \in (i,j)} \\ &\left\{ \begin{array}{l} X[ikx . \overline{X} . X \ F] & \cdot N[kji . \overline{I} . \overline{I} \ \overline{KJ}] \\ X[ikx . \overline{X} . \overline{X} \ \overline{IK}] & \cdot N[kji . \overline{I} . \overline{I} \ \overline{KJ}] \end{array} \right. \\ &R[ijx \ \overline{JX} \ \overline{IX} \ \overline{IJ}] \leftarrow \max_{k \in (i,j)} \\ &\left\{ \begin{array}{l} N \cdot [ikj . \overline{J} . \overline{J} \ \overline{IK}] & X[kjx . X . \overline{X} \ F] \\ N \cdot [ikj . \overline{J} . \overline{J} \ \overline{IK}] & X[kjx . \overline{X} . \overline{X} \ \overline{KJ}] \end{array} \right. \\ &\left\{ \begin{array}{l} N \cdot [ikj . \overline{J} \ \overline{IK}] & X[kjx . \overline{X} . \overline{X} \ \overline{KJ}] \\ N \cdot [ikx \ \overline{KX} \ \overline{IX} \ \overline{IK}] & I[kj . .] \end{array} \right. \\ &\left\{ \begin{array}{l} N[ikx \ \overline{KX} \ \overline{IX} \ \overline{IX} \ \overline{IK}] & I[kj . .] \\ N[ikx \ \overline{KX} \ \overline{IX} \ \overline{IX} \ \overline{IX} \ \overline{IK}] & I[kj . .] \end{array} \right. \\ &\left\{ \begin{array}{l} N[ikx \ \overline{KX} \ \overline{IX} \ \overline{IX} \ \overline{IX}] & - \max_{k \in (i,j)} \\ N[ijx \ \overline{JX} \ \overline{IX} \ \overline{IJ}] \leftarrow \max_{k \in (i,j)} \\ \left. \begin{array}{l} N[ijx \ \overline{JX} \ \overline{IX} \ \overline{IX} \ \overline{II} \end{array} \right] & I[kj . .] \\ N[ijkx . . \overline{X} . \overline{X} \ \overline{IK}] & I[kj . .] \\ N[ikx . . \overline{X} . \overline{X} \ \overline{IK}] & I[kj . .] \\ I[ik . .] & X \cdot [kjx . X . \overline{X} \ \overline{KJ}] \\ I[ik . .] & X \cdot [kjx . \overline{X} . \overline{X} \ \overline{X} \ \overline{X} \end{array} \right. \end{aligned}$$