

$$\text{Int}[i,j] = \max\{$$

$$k \in (i,j):$$

$$\text{LR}[i,k,j] + \text{Int}[k,j] + \text{SELECT}[i,j] ,$$

$$l \in (i,k):$$

$$\text{R}[i,l,k] + \text{Int}[l,k] + \text{L}[k,j,l] + \text{SELECT}[i,k] + \text{SELECT}[l,j] +$$

$$\text{SELECT}[i,j]$$

$$\}$$

$$\text{N}[i,j,x] = \max\{$$

$$\text{Int}[i,j] ,$$

$$k \in (i,j):$$

$$\text{N}[i,k,x] + \text{Int}[k,j] + \text{SELECT}[x,k]$$

$$\}$$

$$\text{L}[i,j,x] = \max\{$$

$$\text{Int}[i,j] ,$$

$$k \in (i,j):$$

$$\text{L}[i,k,x] + \text{N}[k,j,i] + \text{SELECT}[x,k] + \text{SELECT}[i,j] ,$$

$$\text{Int}[i,k] + \text{L}[k,j,i] + \text{SELECT}[x,k] + \text{SELECT}[i,j]$$

$$\}$$

$$\text{R}[i,j,x] = \max\{$$

$$\text{Int}[i,j] ,$$

$$k \in (i,j):$$

$$\text{N}[i,k,j] + \text{R}[k,j,x] + \text{SELECT}[x,k] + \text{SELECT}[i,j] ,$$

$$\text{R}[i,k,j] + \text{Int}[k,j] + \text{SELECT}[x,k] + \text{SELECT}[i,j]$$

$$\}$$

$$\text{LR}[i,j,x] = \max\{$$

$$\text{L}[i,j,x] ,$$

$$\text{R}[i,j,x] ,$$

$$k \in (i,j):$$

$$\text{L}[i,k,x] + \text{R}[k,j,x] + \text{SELECT}[x,k] + \text{SELECT}[i,j] ,$$

$$\text{C}[x,i,k,j] + \text{SELECT}[x,k] + \text{SELECT}[i,j]$$

$$\}$$

$$\text{C}[x,i,a,b] = \max\{$$

$$a < b, k \in (i+1,a):$$

$$\text{C}[x,i,a,k] + \text{Int}[a,b] + \text{SELECT}[k,b] ,$$

$$b < a, k \in (i+1,b):$$

$$\text{C}[x,i,k,b] + \text{Int}[b,a] + \text{SELECT}[k,a] ,$$

$$\text{Int}[i,k] + \text{Int}[k,b] + \text{Int}[b,a] + \text{SELECT}[x,k] + \text{SELECT}[i,b] + \text{SELECT}[k,a]$$

$$\}$$