

$$\begin{aligned}
A &= \min_{a,g,h,j,k} (B[a,g,h,j] + C_{\boxtimes}[g,h-1,j,k-1]) \\
B[a,g,h,j] &= \min_{e,f,i} (C_{\boxtimes}[e,f-1,h,i-1] + C[a,e|f,g,i,j]) \\
C'[a,e|f,g,i,j] &= \min \begin{cases} C'[a,e-1|f,g,i,j], & \text{if } e-1 \notin \{a,f,g,i,j\} \\ C[a+1,e-1|f,g,i,j] + \Delta G(a,e) & \text{if } \{a+1,e-1\} \cap \{f,g,i,j\} = \emptyset \end{cases} \\
C[a,e|f,g,i,j] &= \min \begin{cases} C[a+1,e|f,g,i,j], & \text{if } a+1 \notin \{e,f,g,i,j\} \\ C'[a,e-1|f,g,i,j], & \text{if } e-1 \notin \{a,f,g,i,j\} \\ C[a+1,e-1|f,g,i,j] + \Delta G(a,e) & \text{if } \{a+1,e-1\} \cap \{f,g,i,j\} = \emptyset, \\ D'[a,e+1,f,g,i,j] \end{cases} \\
D[b,d,f,g,i,j] &= \min_c (C_{\boxtimes}[c,d-1,f,g-1] + C_{\boxtimes}[b,c-1,i,j-1])
\end{aligned}$$