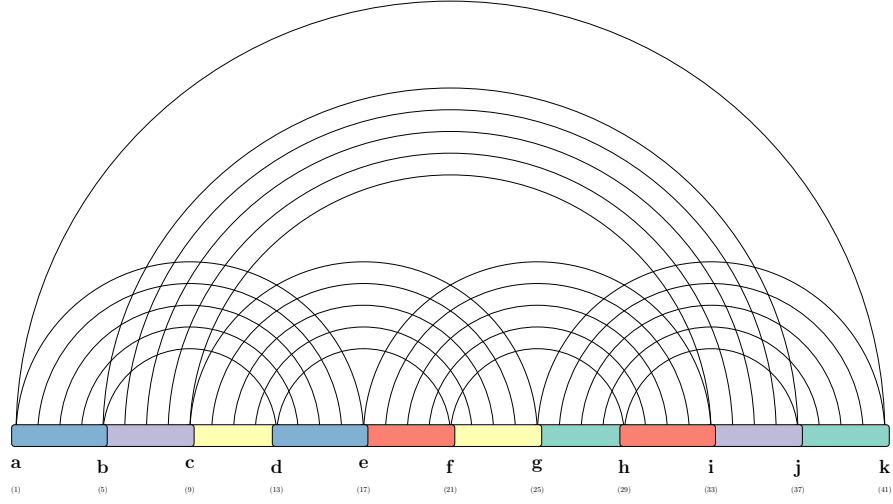**fatgraph name: C5**

first and last anchors, already given: a, k

$$A = \min_{g,h,j} \Big(B[g,j,a,h] + \boxed{C_\boxtimes}[g,h,j,k] \Big)$$

$$B\,[a,g,h,j] = \min_{e,f,i} \Big(\boxed{C}\,[e,a \mid g,j,f,i] + \boxed{C_\boxtimes}\,[e,f,h,i] \Big)$$

$$\boxed{C}{}'\,[e,a \mid g,j,f,i] = \min \begin{cases} \boxed{C}{}'[e,a-1 \mid g,j,f,i], & \text{if } a-1, \notin \{e,g,j,f,i\} \\ \boxed{C}\,[e+1,a-1 \mid g,j,f,i] + \Delta G(e,a) & \text{if } \{e+1,a-1\} \cap \{g,j,f,i\} = \emptyset \end{cases}$$

$$\boxed{C}\,[e,a \mid g,j,f,i] = \min \begin{cases} \boxed{C}\,[e+1,a \mid g,j,f,i], & \text{if } e+1 \notin \{a,g,j,f,i\} \\ \boxed{C}{}'[e,a-1 \mid g,j,f,i], & \text{if } a-1, \notin \{e,g,j,f,i\} \\ \boxed{C}\,[e+1,a-1 \mid g,j,f,i] + \Delta G(e,a) & \text{if } \{e+1,a-1\} \cap \{g,j,f,i\} = \emptyset, \\ D[i,g,a,e,j,f] \end{cases}$$

$$D\,[b,d,f,g,i,j] = \min_{c} \Big(\boxed{C_\boxtimes}\,[c,d,f,g] + \boxed{C_\boxtimes}\,[b,c,i,j] \Big)$$

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