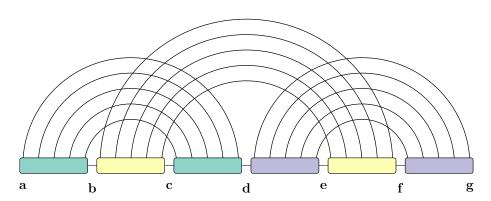


## fatgraph name: K



first and last anchors, already given: a, q

$$A = \min_{a,d,g} \left( B \left[ a, d|d, g \right] \right)$$

$$B'\left[a,d|d',g\right] = \min \begin{cases} B'\left[a,d-1|d',g\right], & \text{if } d-1,\notin\{a,d',g\} \\ B\left[a+1,d-1|d',g\right] + \Delta G(a,d) & \text{if } \{a+1,d-1\} \cap \{d',g\} = \emptyset \end{cases}$$

$$B\left[a,d|d',g\right] = \min \begin{cases} B\left[a+1,d|d',g\right], & \text{if } a+1\notin\{d,d',g\} \\ B\left[a,d-1|d',g\right], & \text{if } d-1,\notin\{a,d',g\} \\ B\left[a+1,d-1|d',g\right] + \Delta G(a,d) & \text{if } \{a+1,d-1\} \cap \{d',g\} = \emptyset, \end{cases}$$

$$C'\left[d,g|b,c\right] = \min \begin{cases} C'\left[d,g-1|b,c\right], & \text{if } g-1,\notin\{d,b,c\} \\ C\left[d+1,g-1|b,c\right] + \Delta G(d,g) & \text{if } \{d+1,g-1\} \cap \{b,c\} = \emptyset \end{cases}$$

$$C\left[d,g|b,c\right] = \min \begin{cases} C'\left[d,g-1|b,c\right], & \text{if } d+1\notin\{g,b,c\} \\ C'\left[d,g-1|b,c\right], & \text{if } g-1,\notin\{d,b,c\} \\ C'\left[d,g-1|b,c\right], & \text{if } g-1,\emptyset(d,g) \\ C''\left[d,g-1|b,c\right], & \text{if } g-1,\emptyset(d,g)$$

