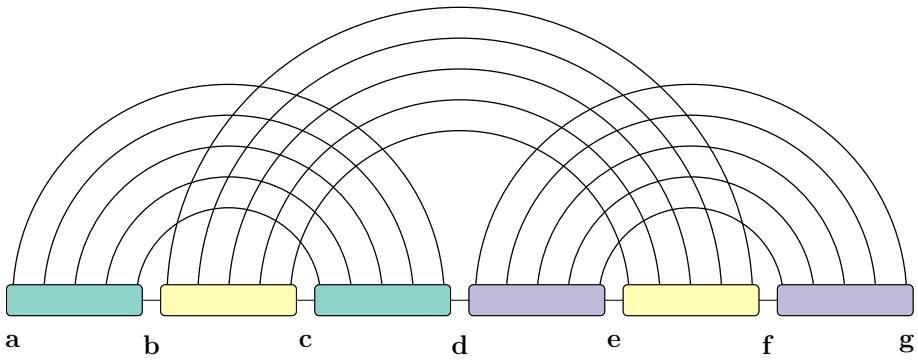
fatgraph name: K



first and last anchors, already given: a, g

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

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

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

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

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