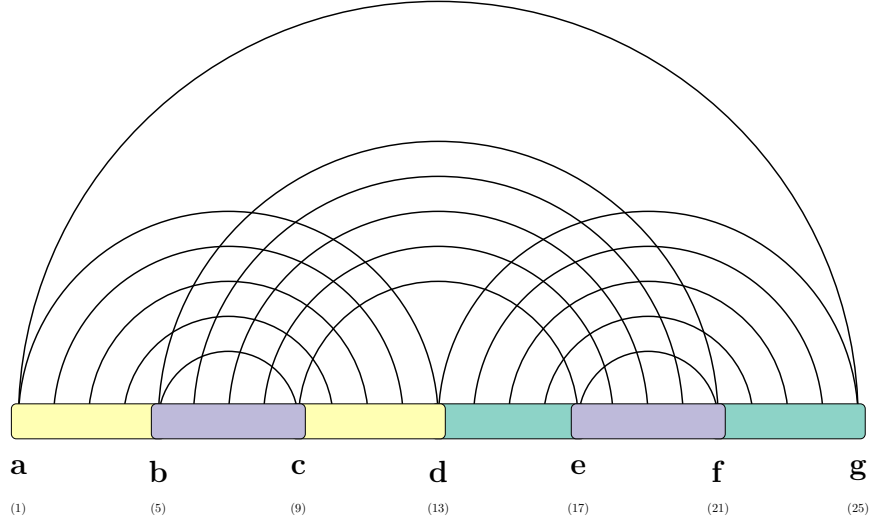


fatgraph name: K



first and last anchors, already given: a, g

$$A = \min_d \left(B[d, g \mid d, a] \right)$$

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

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

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

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

