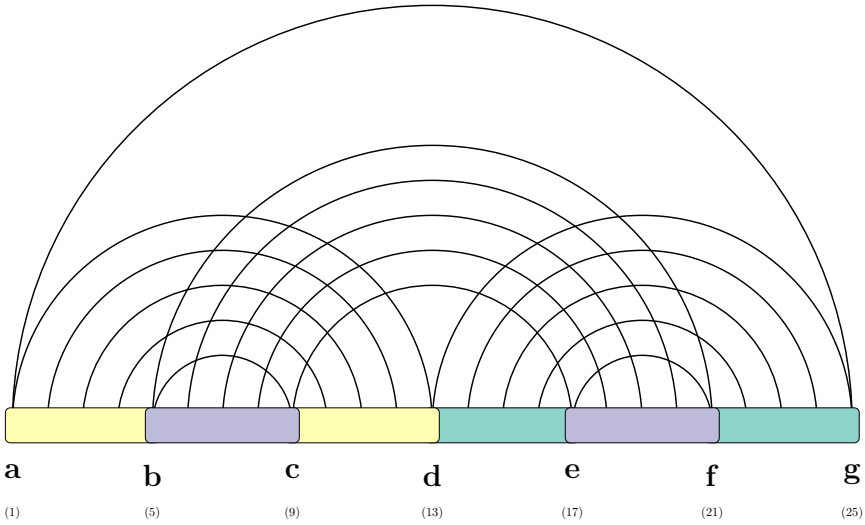
fatgraph name: K



first and last anchors, already given: a, g

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

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

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

$$C'\,[d, a \mid f, e] = \min \Big\{ C'\,[d+1, a \mid f, e], \quad \text{if } d+1 \notin \{a, f, e\}$$

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