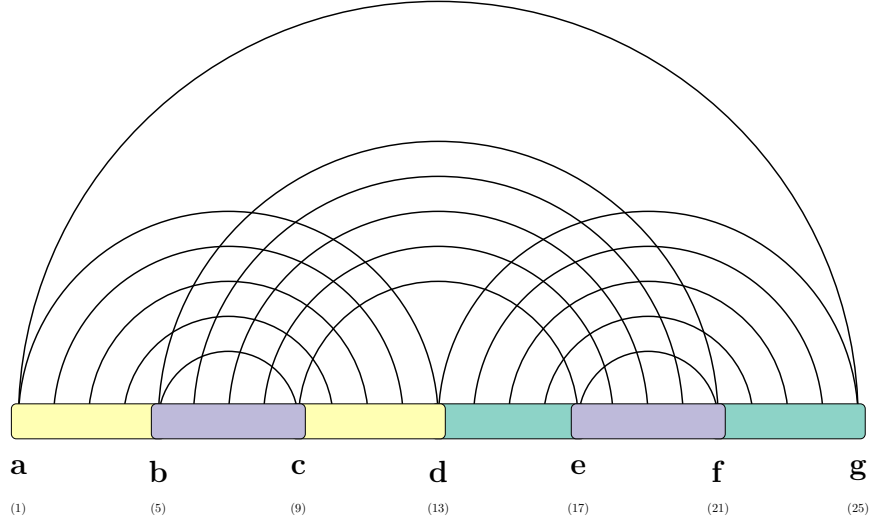


fatgraph name: **K**



first and last anchors, already given:  $a, g$

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

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

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

$$\textcolor{yellow}{C}'[d, a \mid f, e] = \min \left\{ \textcolor{yellow}{C}'[d+1, a \mid f, e], \quad \text{if } d+1 \notin \{a, f, e\} \right.$$

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

