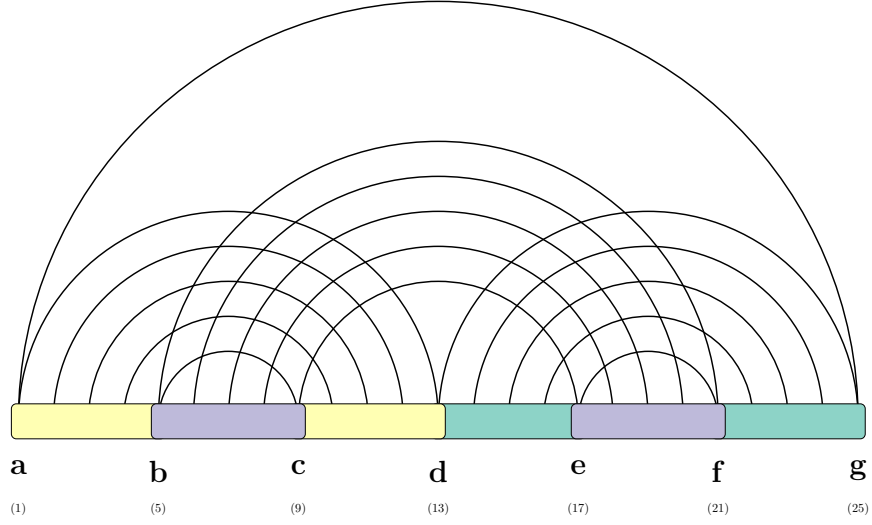


fatgraph name: **K**



first and last anchors, already given: a, g

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

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

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

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

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