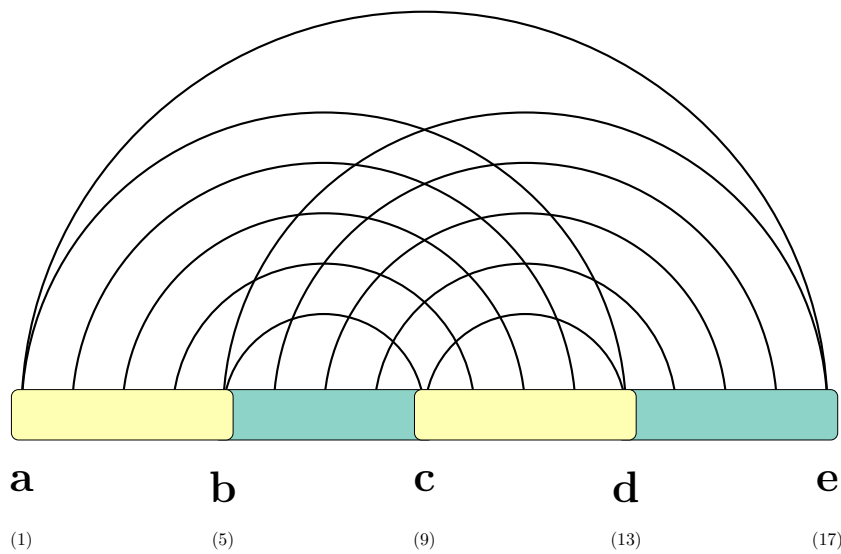


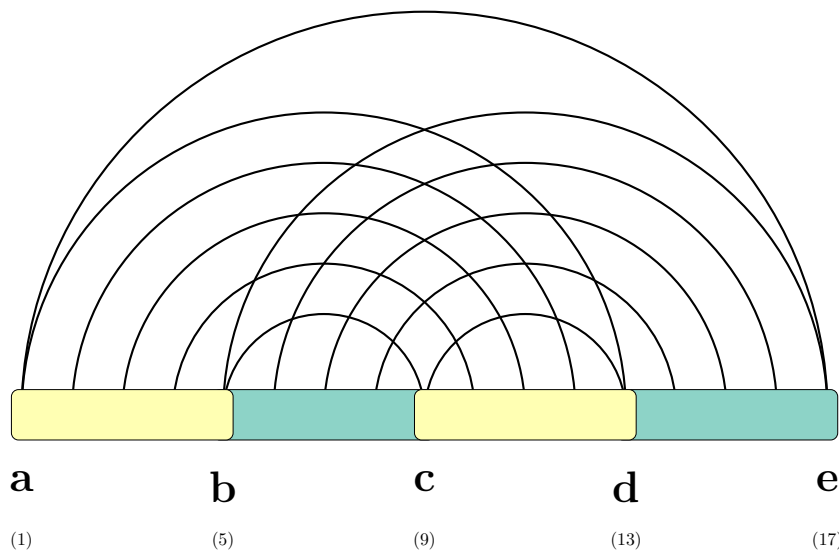
fatgraph name: H



first and last anchors, already given: a, e

$$A = \min_{b,c,d} \left(C_{\text{yellow}}[a, b, c, d] + C_{\text{teal}}[b, c, d, e] \right)$$

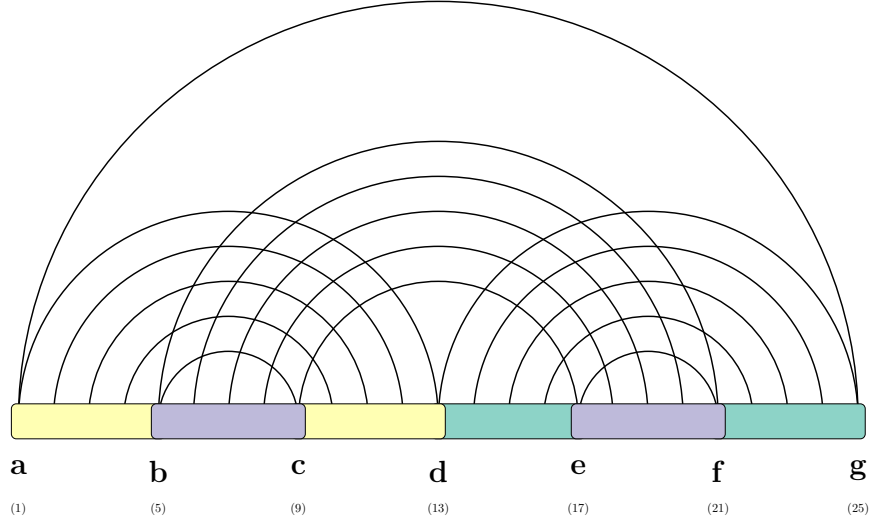
fatgraph name: H2



first and last anchors, already given: a, e

$$A = \min_{b,c,d} \left(C_{\text{yellow}}[a, b, c, d] + C_{\text{teal}}[b, c, d, e] \right)$$

fatgraph name: **K**



first and last anchors, already given: a, g

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

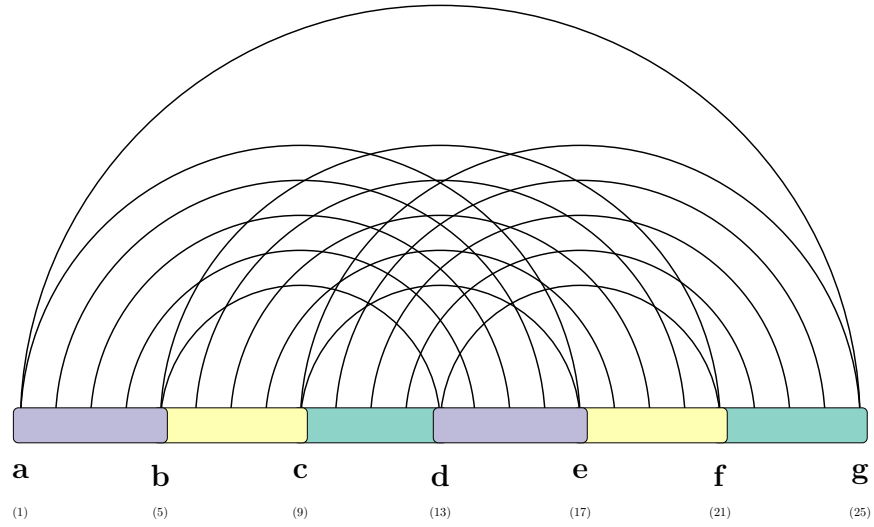
$$\textcolor{teal}{B}'[g, d \mid d', a] = \min \begin{cases} \textcolor{teal}{B}'[g, d-1 \mid d', a], & \text{if } d-1 \notin \{g, d', a\} \\ \textcolor{teal}{B}[g+1, d-1 \mid d', a] + \Delta G(g, d) & \text{if } \{g+1, d-1\} \cap \{d', a\} = \emptyset \end{cases}$$

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

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

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

fatgraph name: **L**

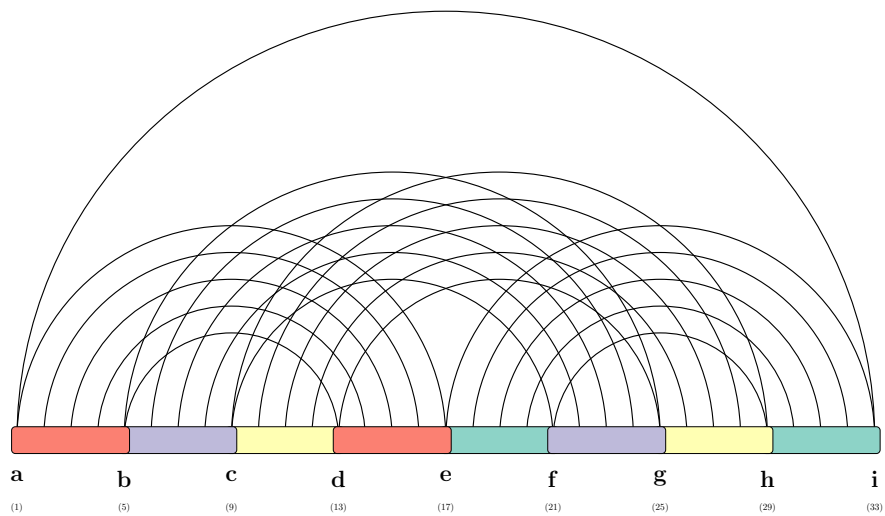


first and last anchors, already given: a, g

$$A = \min_{c,d,f} \left(B[c, d, f, a] + C_{\boxtimes}[c, d, f, g] \right)$$

$$B[a, c, d, f] = \min_{b,e} \left(C_{\boxtimes}[a, b, d, e] + C_{\boxtimes}[b, c, e, f] \right)$$

fatgraph name: M



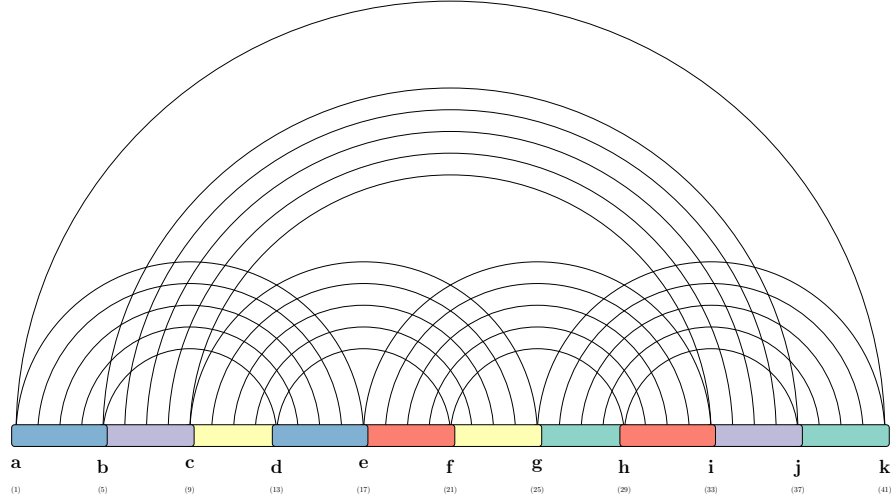
first and last anchors, already given: a, i

$$A = \min_{e,f,h} \left(C_{\text{green}}[e, f, h, i] + B[f, e, a, h] \right)$$

$$B[a, e, f, h] = \min_{b,d} \left(C[f, b, h, d] + C_{\text{red}}[a, b, d, e] \right)$$

$$C[b, d, f, h] = \min_{c,g} \left(C_{\text{yellow}}[c, d, g, h] + C_{\text{purple}}[b, c, f, g] \right)$$

fatgraph name: C5



first and last anchors, already given: a, k

$$A = \min_{g,h,j} \left(B[g, j, a, h] + C_{\boxtimes}[g, h, j, k] \right)$$

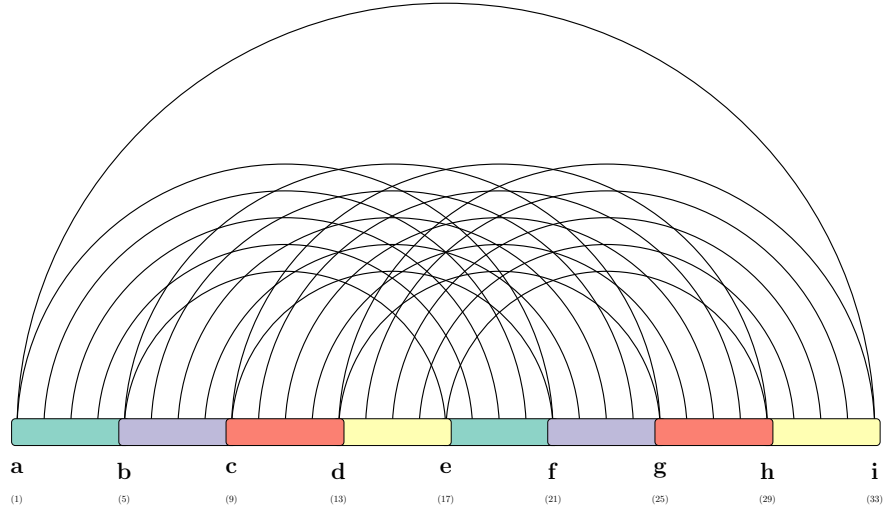
$$B[a, g, h, j] = \min_{e,f,i} \left(C[e, a \mid g, j, f, i] + C_{\boxtimes}[e, f, h, i] \right)$$

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

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

$$D[b, d, f, g, i, j] = \min_c \left(C_{\boxtimes}[c, d, f, g] + C_{\boxtimes}[b, c, i, j] \right)$$

fatgraph name: K4



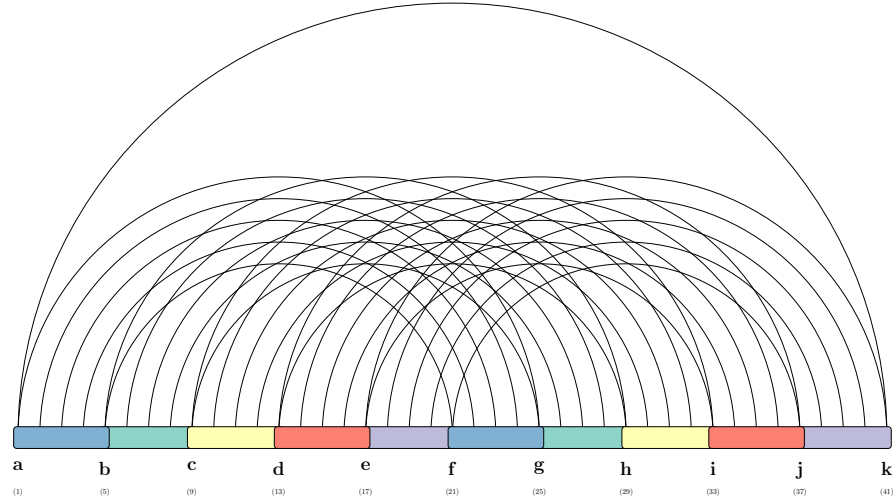
first and last anchors, already given: a, i

$$A = \min_{d,e,h} \left(B[a, d, h, e] + \text{yellow box } [d, e, h, i] \right)$$

$$B[a, d, e, h] = \min_{c,g} \left(C[a, c, g, e] + \text{red box } [c, d, g, h] \right)$$

$$C[a, c, e, g] = \min_{b,f} \left(\text{teal box } [a, b, e, f] + \text{purple box } [b, c, f, g] \right)$$

fatgraph name: K5



first and last anchors, already given: a, k

$$A = \min_{e,f,j} \left(B[a, f, j, e] + \text{C}_{\text{box}}[e, f, j, k] \right)$$

$$B[a, e, f, j] = \min_{d,i} \left(C[d, a, f, i] + \text{C}_{\text{box}}[d, e, i, j] \right)$$

$$C[a, d, f, i] = \min_{b,g} \left(\text{C}_{\text{box}}[a, b, f, g] + D[d, b, g, i] \right)$$

$$D[b, d, g, i] = \min_{c,h} \left(\text{C}_{\text{box}}[b, c, g, h] + \text{C}_{\text{box}}[c, d, h, i] \right)$$