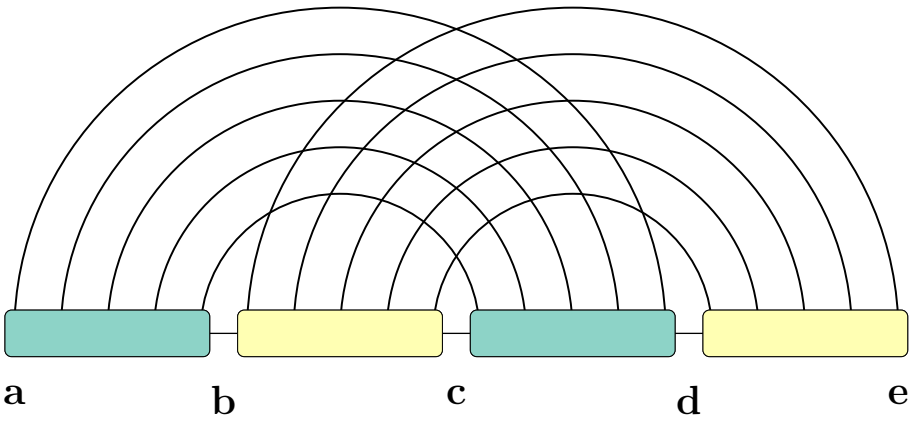
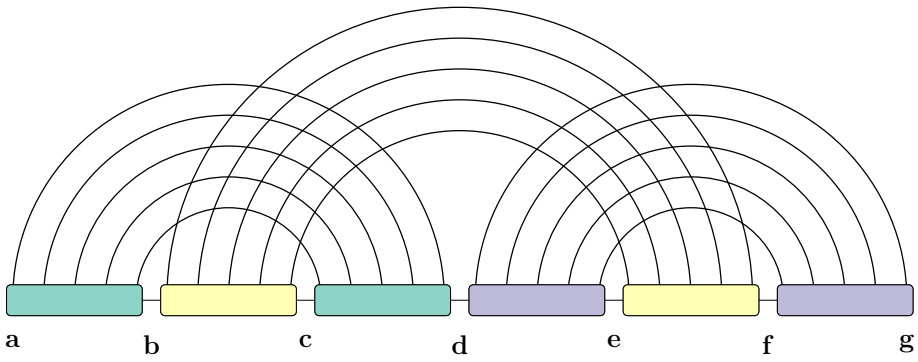
fatgraph name: H



first and last anchors, already given: a, e

$$A = \min_{b,c,d} \Big(C_{\boxtimes}\,[b, c-1, d, e-1] + C_{\boxtimes}\,[a, b-1, c, d-1] \Big)$$

fatgraph name: K



first and last anchors, already given: a, g

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

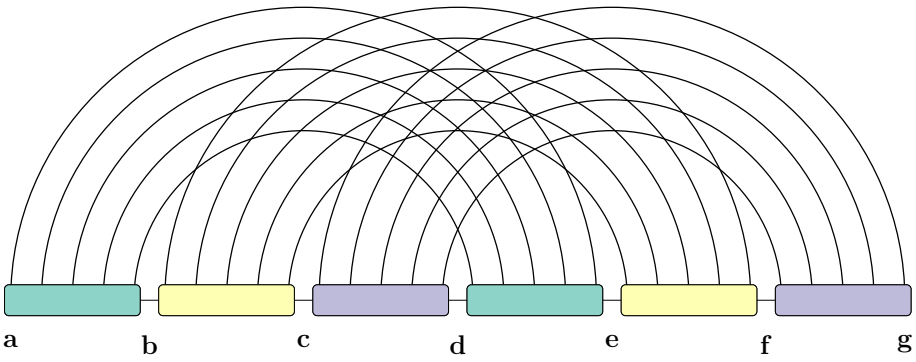
$$B'\,[a, d|d', g] = \min \begin{cases} B'\,[a, d-1|d', g], & \text{if } d-1, \notin \{a, d', g\} \\ B\,[a+1, d-1|d', g] + \Delta G(a, d) & \text{if } \{a+1, d-1\} \cap \{d', g\} = \emptyset \end{cases}$$

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

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

$$C\,[d, g|b, c] = \min \begin{cases} C\,[d+1, g|b, c], & \text{if } d+1 \notin \{g, b, c\} \\ C'\,[d, g-1|b, c], & \text{if } g-1, \notin \{d, b, c\} \\ C\,[d+1, g-1|b, c] + \Delta G(d, g) & \text{if } \{d+1, g-1\} \cap \{b, c\} = \emptyset, \\ C_{\boxtimes}'\,[b, c-1, d, g+1-1] \end{cases}$$

fatgraph name: L

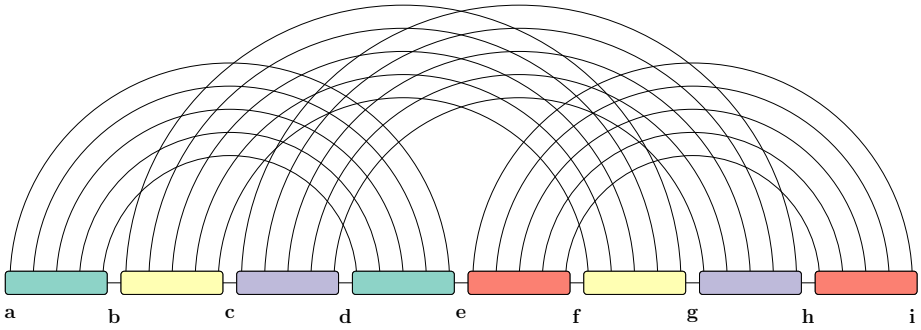


first and last anchors, already given: a, g

$$A = \min_{c,d,f} \Big(B\,[a,c,d,f] + C_{\boxtimes}\,[c,d-1,f,g-1] \Big)$$

$$B\,[a,c,d,f] = \min_{b,e} \Big(C_{\boxtimes}\,[b,c-1,e,f-1] + C_{\boxtimes}\,[a,b-1,d,e-1] \Big)$$

fatgraph name: M



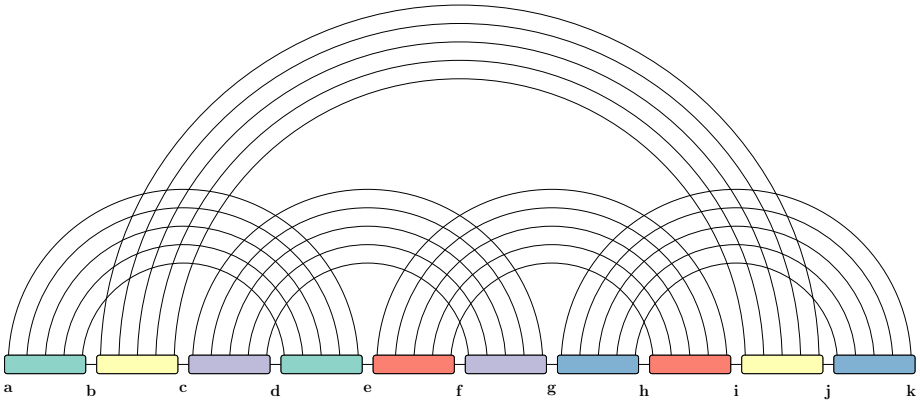
first and last anchors, already given: a, i

$$A = \min_{e,f,h} \Big(B\,[a, e, f, h] + C_{\boxtimes}\,[e, f-1, h, i-1] \Big)$$

$$B\,[a, e, f, h] = \min_{b,d} \Big(C_{\boxtimes}\,[a, b-1, d, e-1] + C\,[b, d, f, h] \Big)$$

$$C\,[b, d, f, h] = \min_{c,g} \Big(C_{\boxtimes}\,[c, d-1, g, h-1] + C_{\boxtimes}\,[b, c-1, f, g-1] \Big)$$

fatgraph name: C5



first and last anchors, already given: a, k

$$A = \min_{g,h,j} \Big(B\,[a,g,h,j] + C_{\boxtimes}\,[g,h-1,j,k-1] \Big)$$

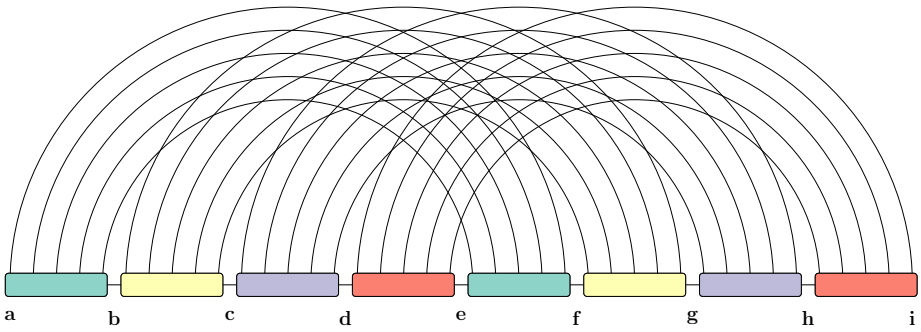
$$B\,[a,g,h,j] = \min_{e,f,i} \Big(C_{\boxtimes}\,[e,f-1,h,i-1] + C\,[a,e|f,g,i,j] \Big)$$

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

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

$$D\,[b,d,f,g,i,j] = \min_{c} \Big(C_{\boxtimes}\,[c,d-1,f,g-1] + C_{\boxtimes}\,[b,c-1,i,j-1] \Big)$$

fatgraph name: K4



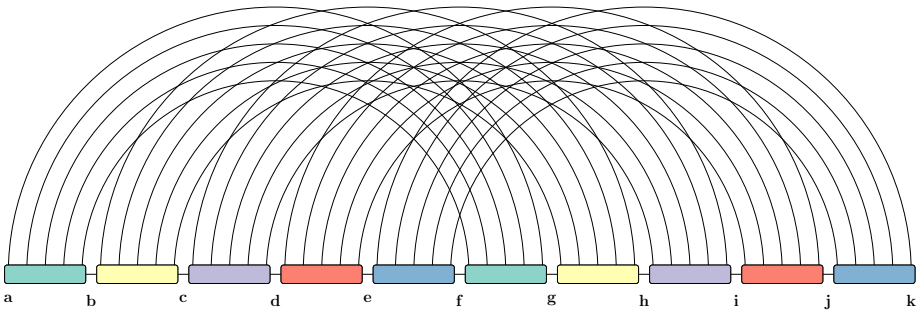
first and last anchors, already given: a, i

$$A = \min_{d,e,h} \Big(B\,[a,d,e,h] + C_{\boxtimes}\,[d,e-1,h,i-1] \Big)$$

$$B\,[a,d,e,h] = \min_{c,g} \Big(C\,[a,c,e,g] + C_{\boxtimes}\,[c,d-1,g,h-1] \Big)$$

$$C\,[a,c,e,g] = \min_{b,f} \Big(C_{\boxtimes}\,[b,c-1,f,g-1] + C_{\boxtimes}\,[a,b-1,e,f-1] \Big)$$

fatgraph name: K5



first and last anchors, already given: a, k

$$A = \min_{e,f,j} \Big(B\,[a,e,f,j] + C_{\boxtimes}\,[e,f-1,j,k-1] \Big)$$

$$B\,[a,e,f,j] = \min_{d,i} \Big(C\,[a,d,f,i] + C_{\boxtimes}\,[d,e-1,i,j-1] \Big)$$

$$C\,[a,d,f,i] = \min_{b,g} \Big(D\,[b,d,g,i] + C_{\boxtimes}\,[a,b-1,f,g-1] \Big)$$

$$D\,[b,d,g,i] = \min_{c,h} \Big(C_{\boxtimes}\,[c,d-1,h,i-1] + C_{\boxtimes}\,[b,c-1,g,h-1] \Big)$$