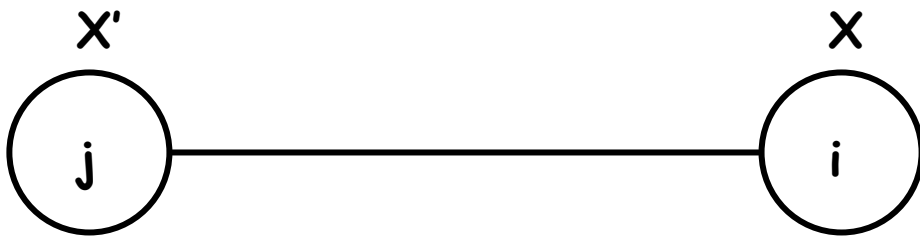


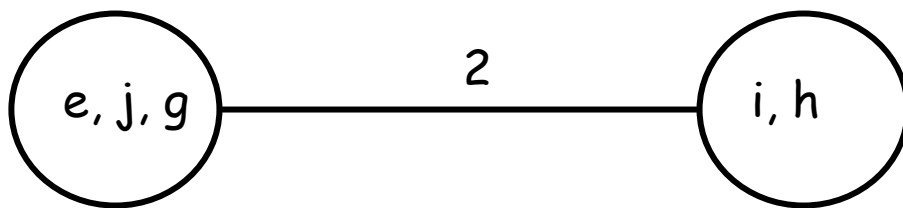
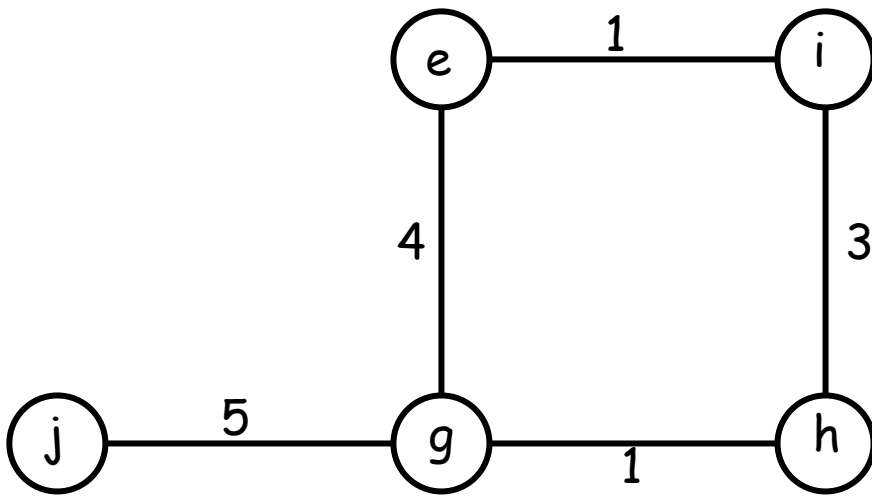
Gomory-Hu Tree

- Given n -node network
- Find $F(i, j) = C(i, j)$



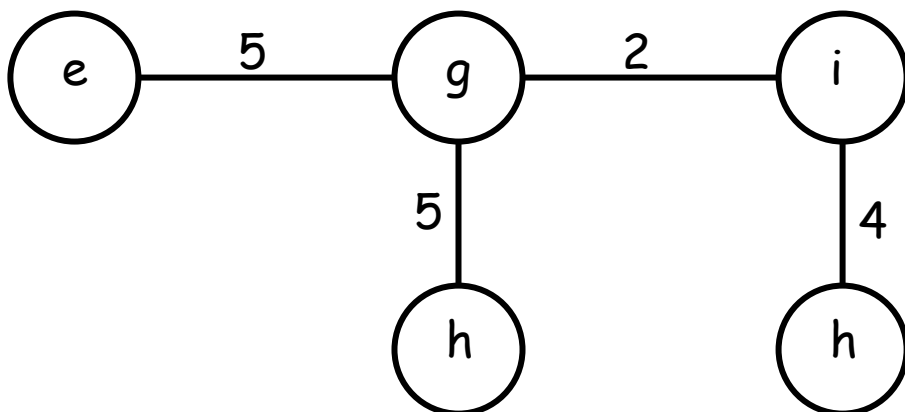
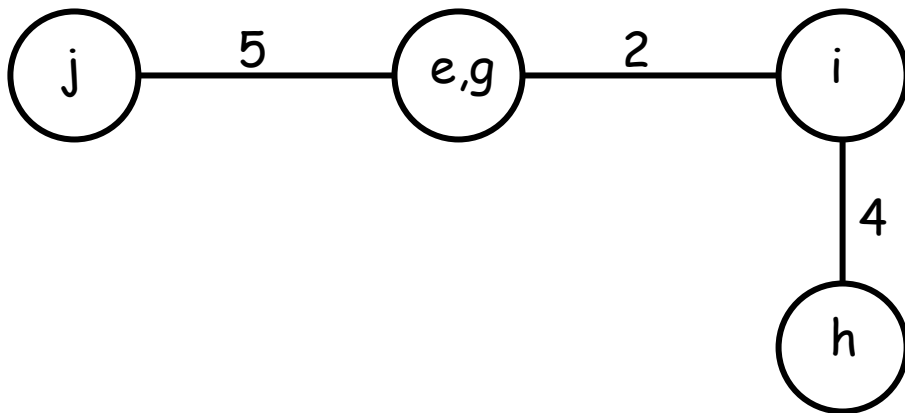
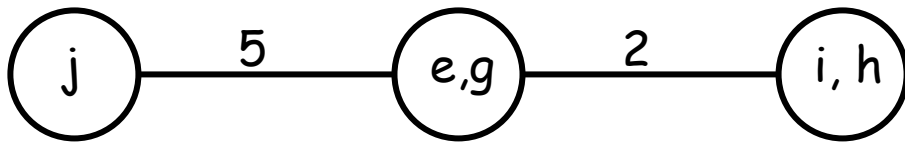
- For all nodes $g \in X'$ and all node $h \in X$
 - $F(g, h) \leq C(i, j)$

Gomory-Hu Tree



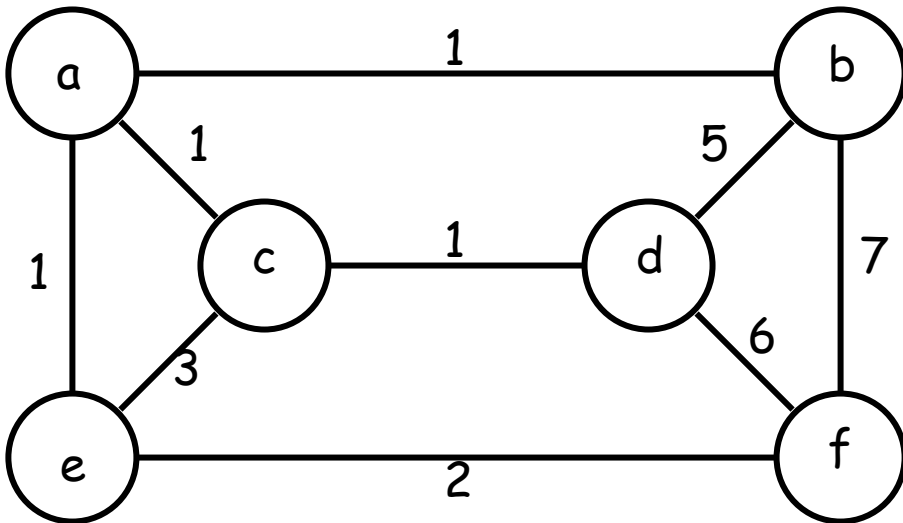
- $F(i, e) = 5$
- $F(i, h) = 4$
- $F(j, h) = 2$

Gomory-Hu Tree

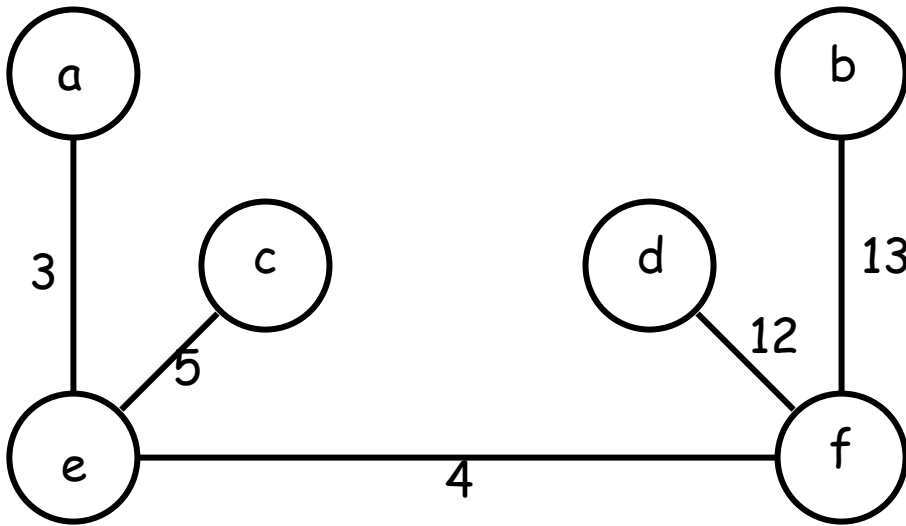
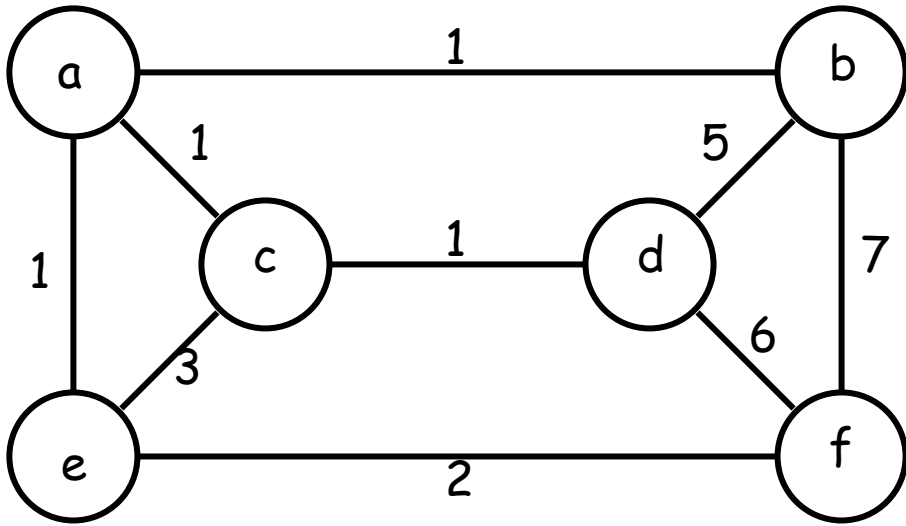


Gomory-Hu Tree

- Given a network of n nodes, there exists $(n-1)$ Min Cuts separating the n nodes

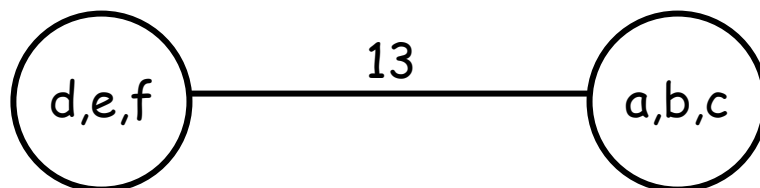
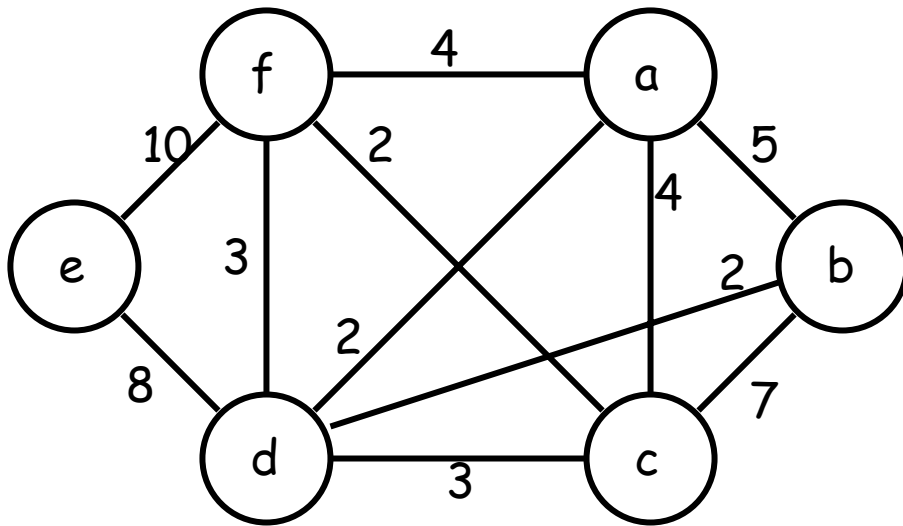


Gomory-Hu Tree

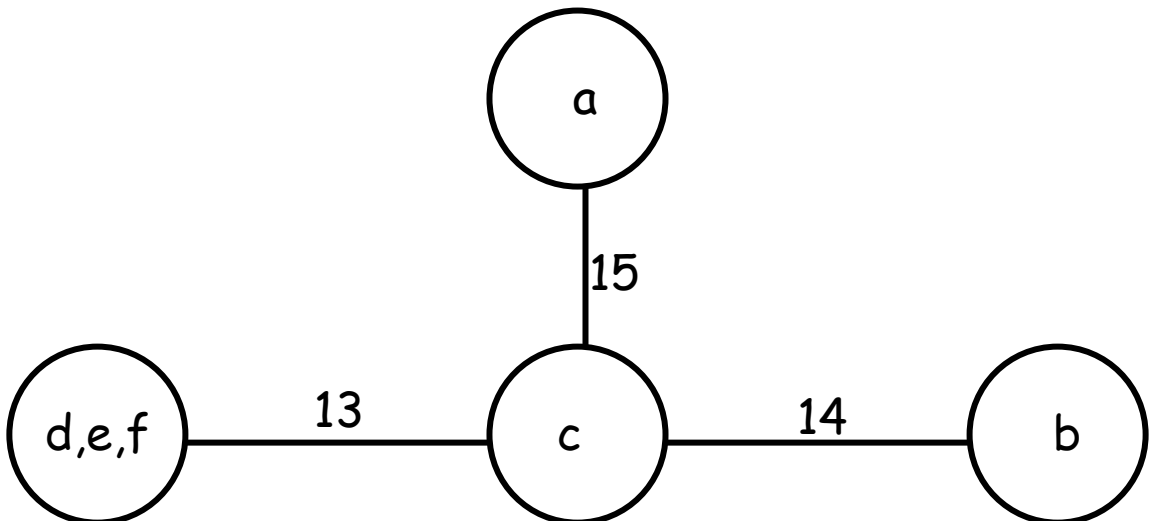
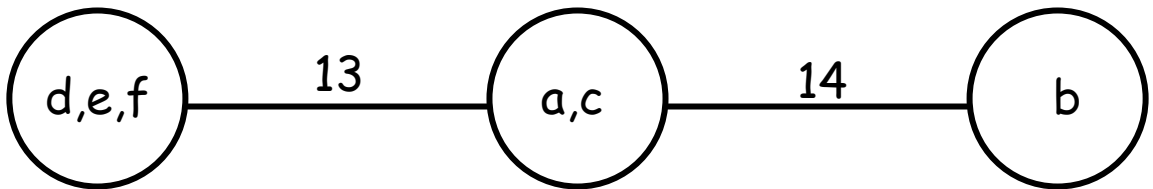
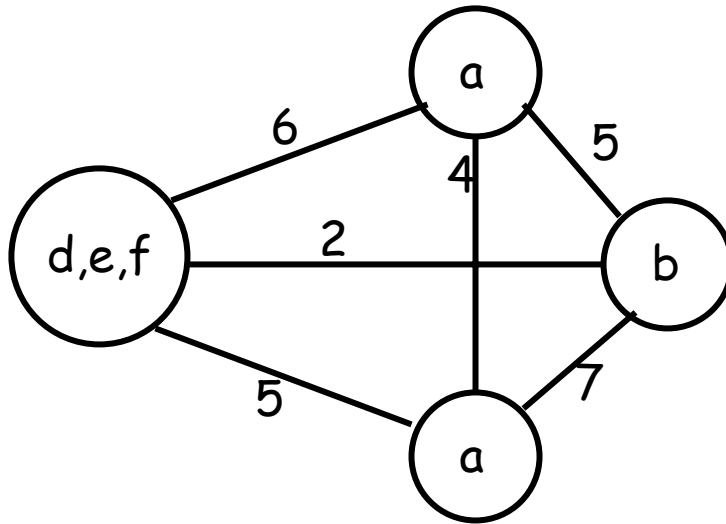


Gomory-Hu Tree

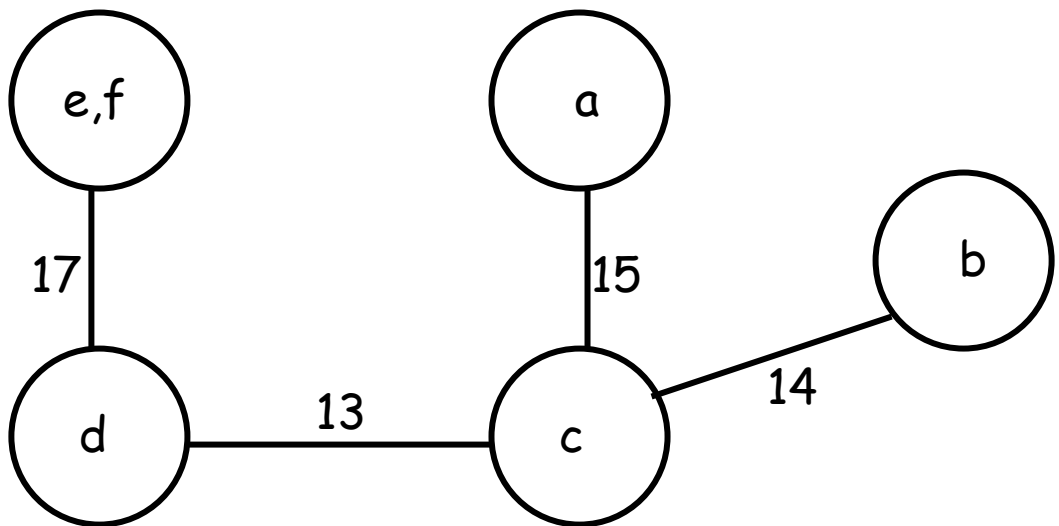
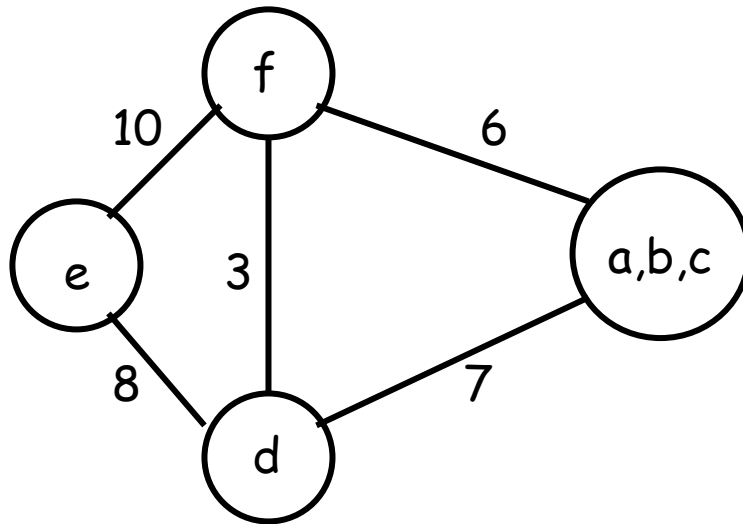
- Algorithm for G-H cut tree



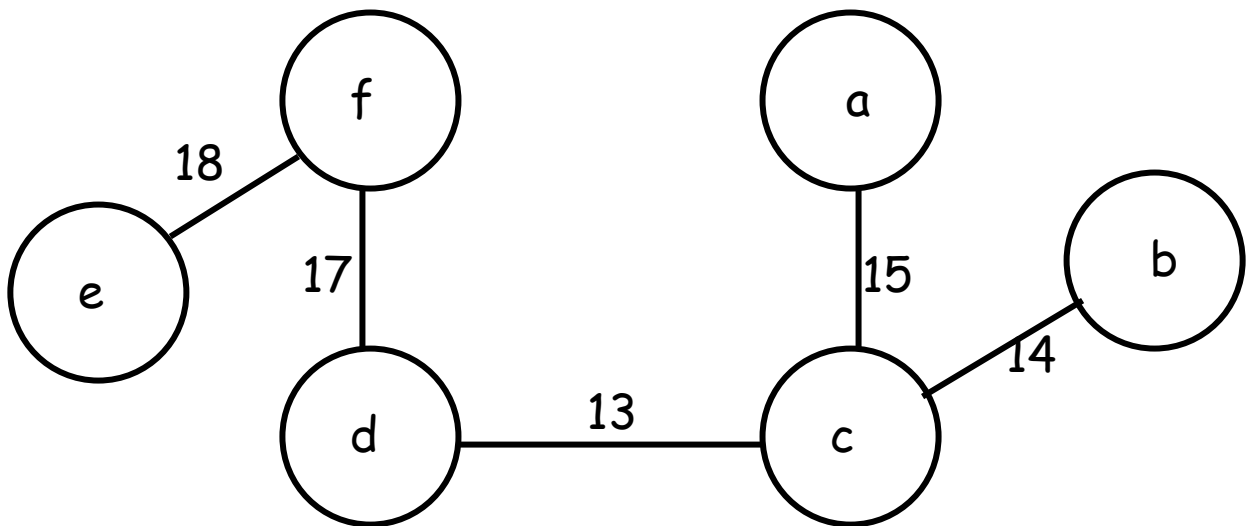
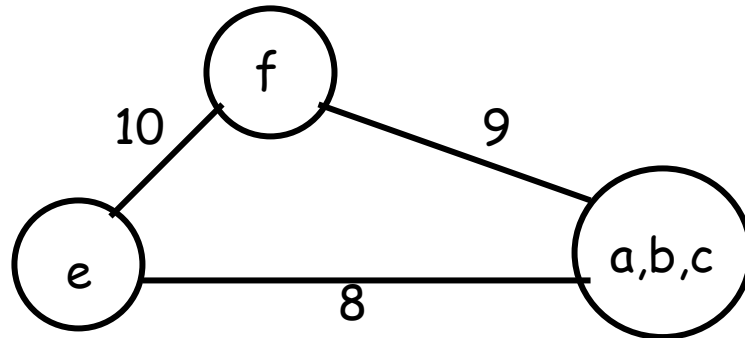
Gomory-Hu Tree



Gomory-Hu Tree

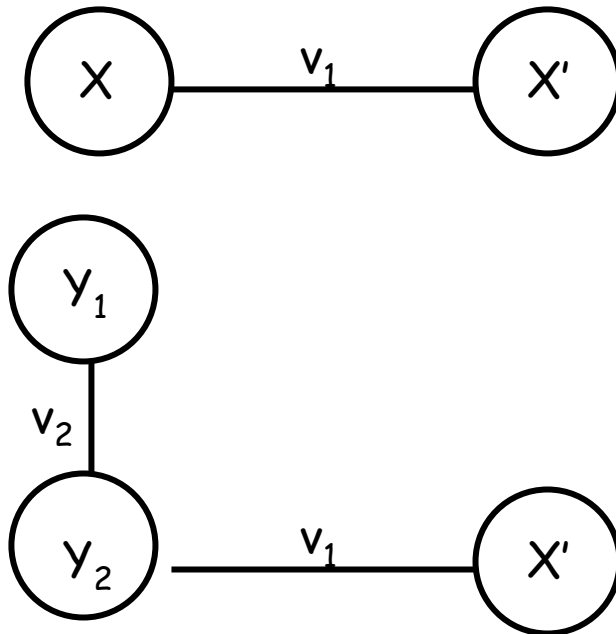


Gomory-Hu Tree



Gomory-Hu Tree

- Proof



- $F(i, j) \leq \text{Min}(v_{ia}, v_{ab}, \dots, v_{dj})$
- $F(i, j) \geq \text{Min}(v_{ia}, v_{ab}, \dots, v_{dj})$