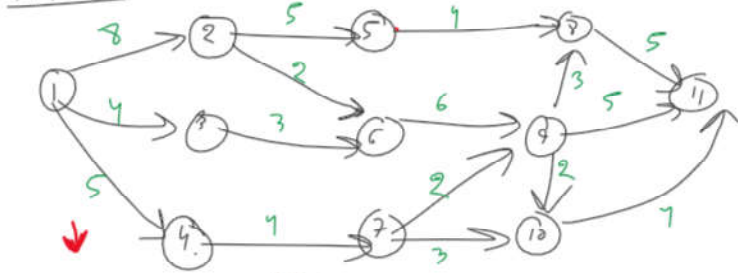


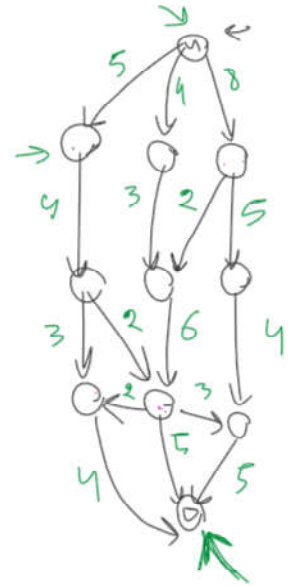
max flow
min cut
min cost
Matching
Vertex cover

Network Flow

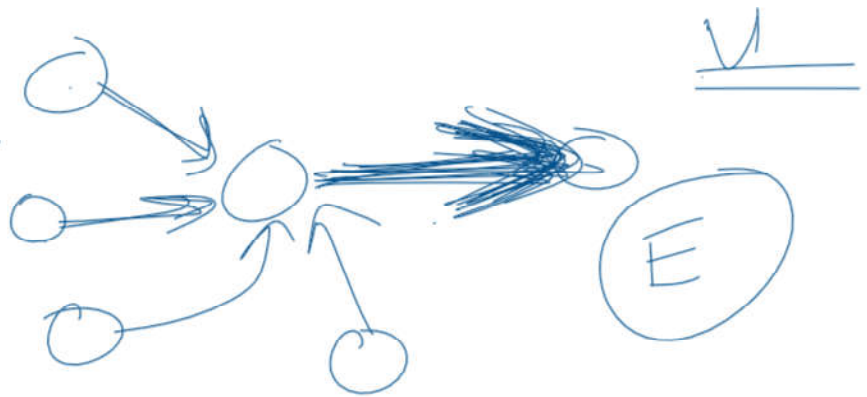
step: 1 \rightarrow find a path to Dest
step: 2 \rightarrow send and mark opposite



$$5+4+4=13$$



$$(V+E) \cdot K$$



$$\Rightarrow \boxed{V(V+E) \cdot E}$$

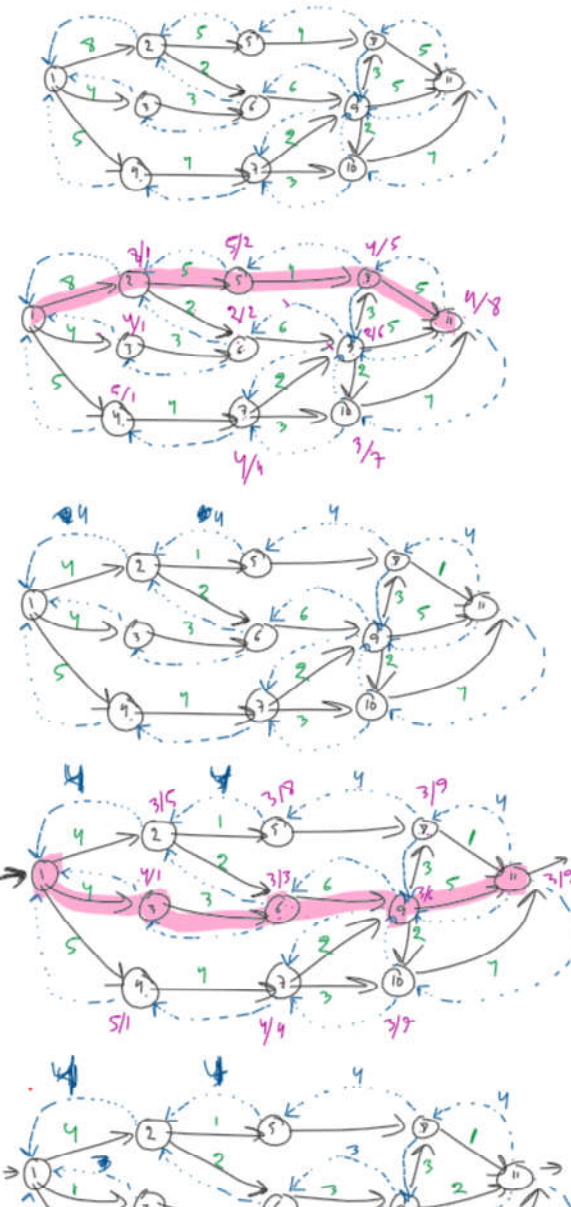
$$VE(V+E)$$

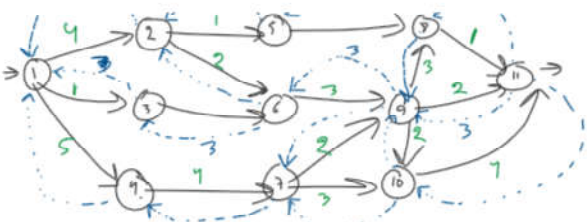
$$4+3+2+2+2$$

$$\Rightarrow \boxed{VE^2}$$

$$V=500, E=1000$$

$$\rightarrow 7 \times 10^6$$





1 1 2 10

→ 10^8

10^{10}

10^9

