

PF. Max Nb of edge-disj. paths  $\geq$  Min Nb of edges to remove

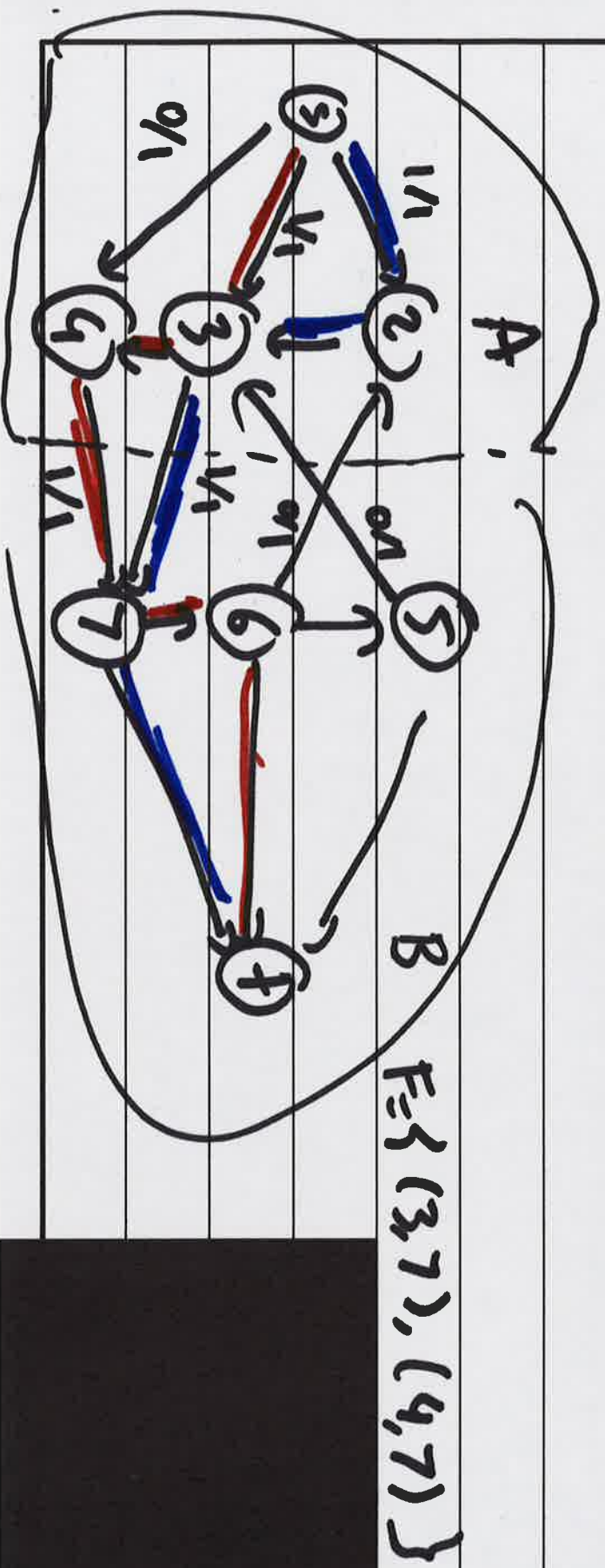
- Suppose that Nb of edge-disj. paths is  $k$ .

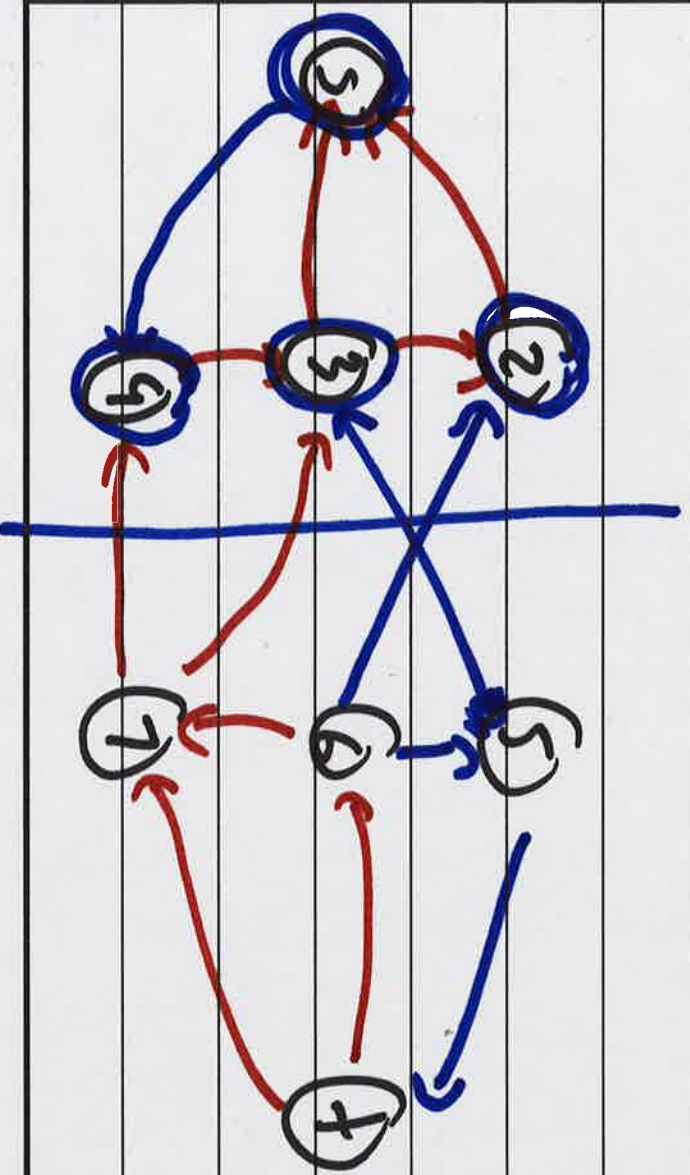
$\Rightarrow$  Max flow value is  $k$

$\Rightarrow \exists$  cut  $(A, B)$  of capacity  $k$  (Max-flow Min-cut).

- Let  $F$  be the set of edges going from  $A$  to  $B$ , each with cap. 1.

- $|F| = k$ , it disconnects  $s$  from  $t$ .





— backward edges  
— forward edges