24-S1-Q2

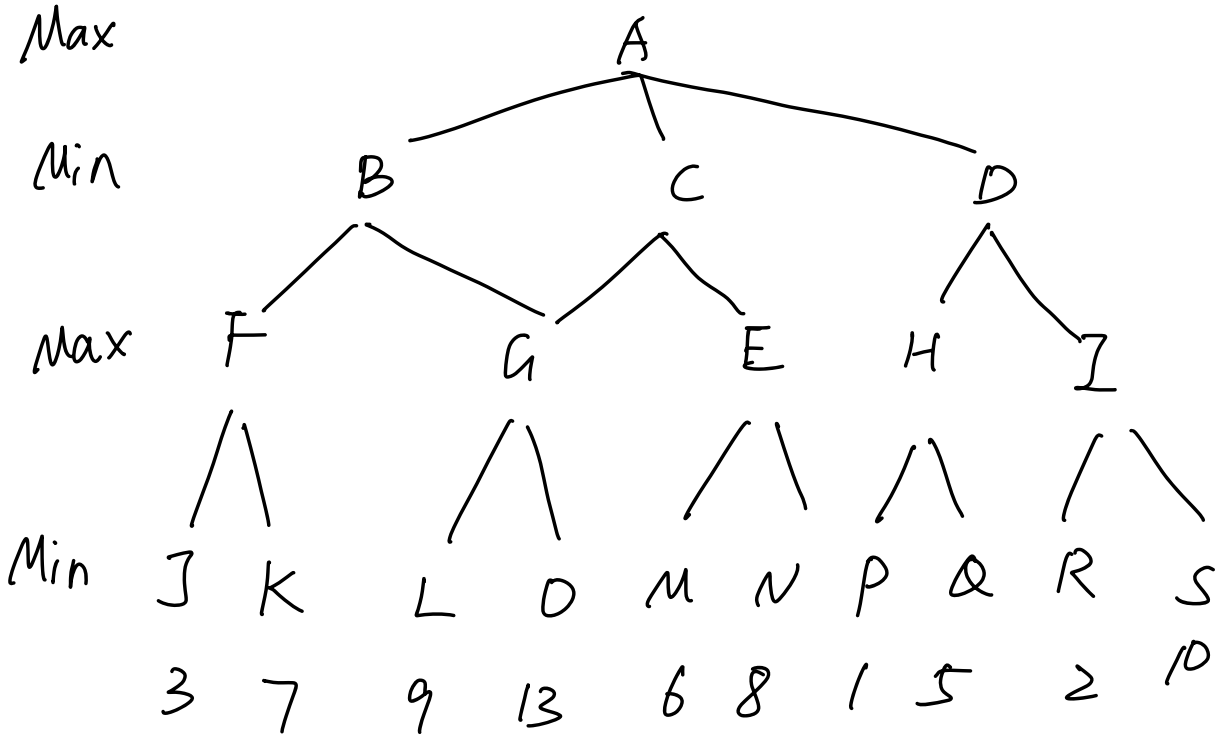
(a) first -> Max

(i) A -> B C D ?

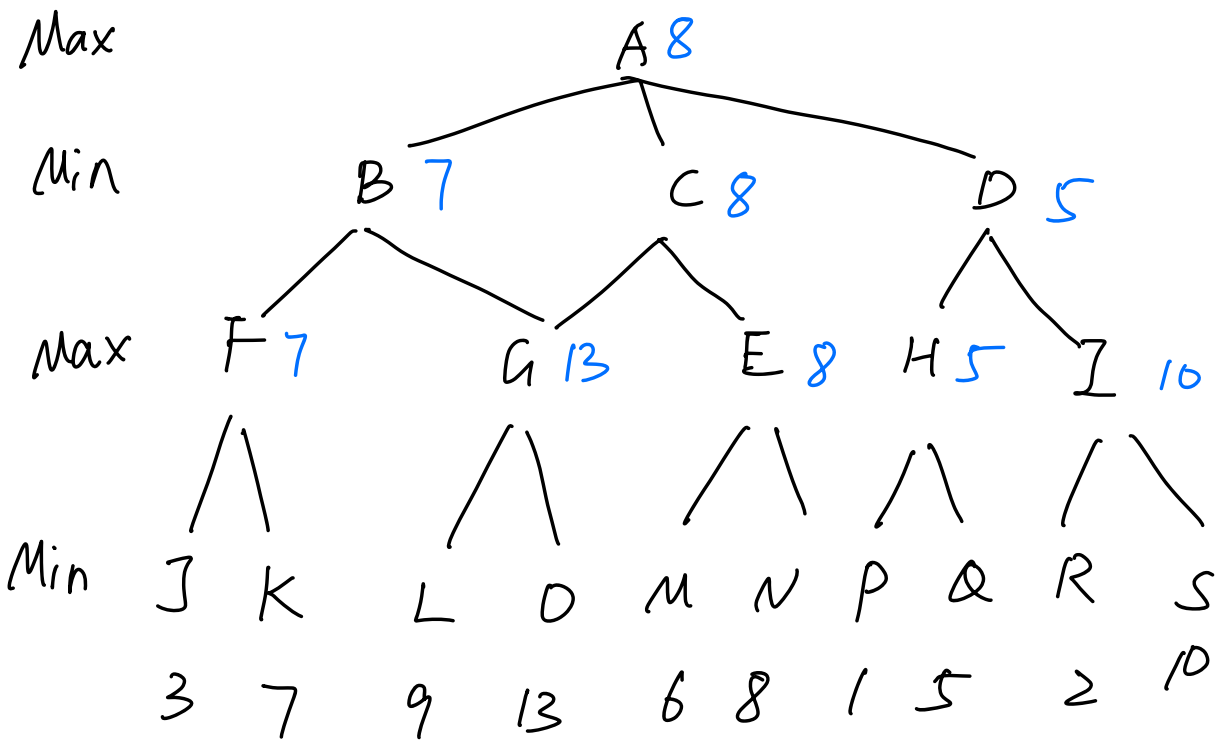
(ii) left -> right

(iii) not examined nodes

A-B pruning



Solution (a) (i) ① compute result



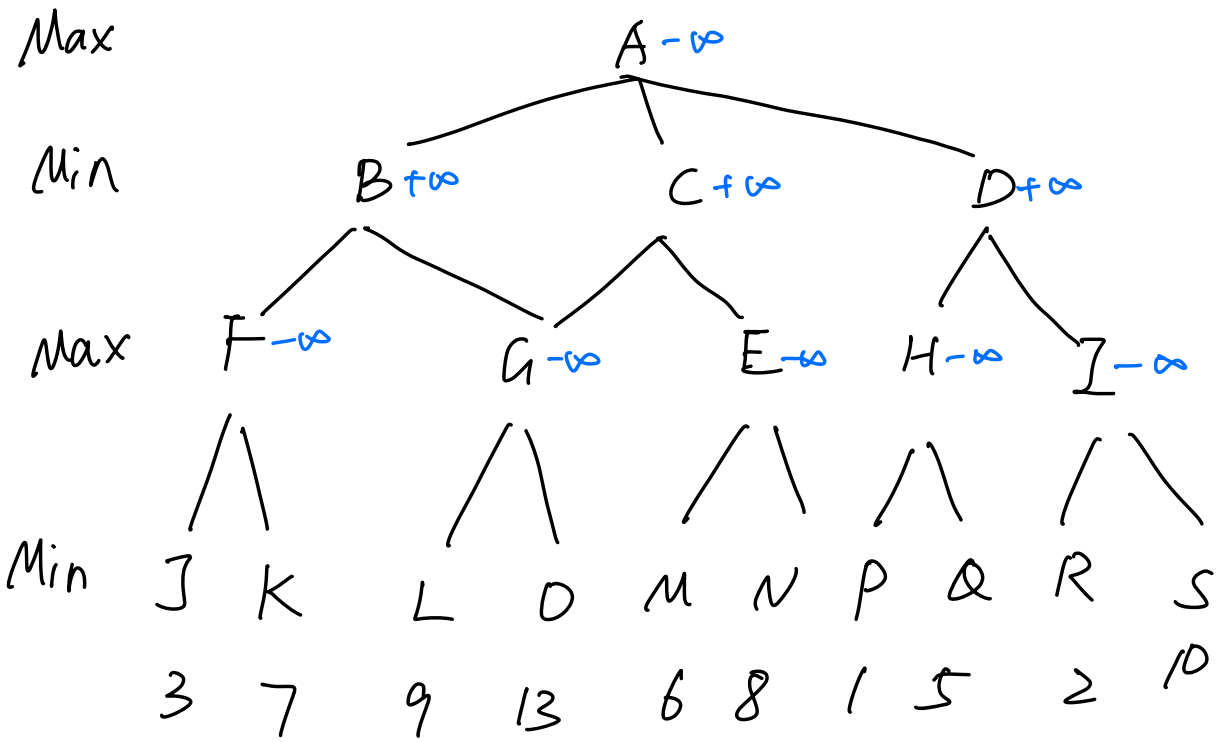
② the first player choose C

Since according to min-max algorithm the first player is a Max player

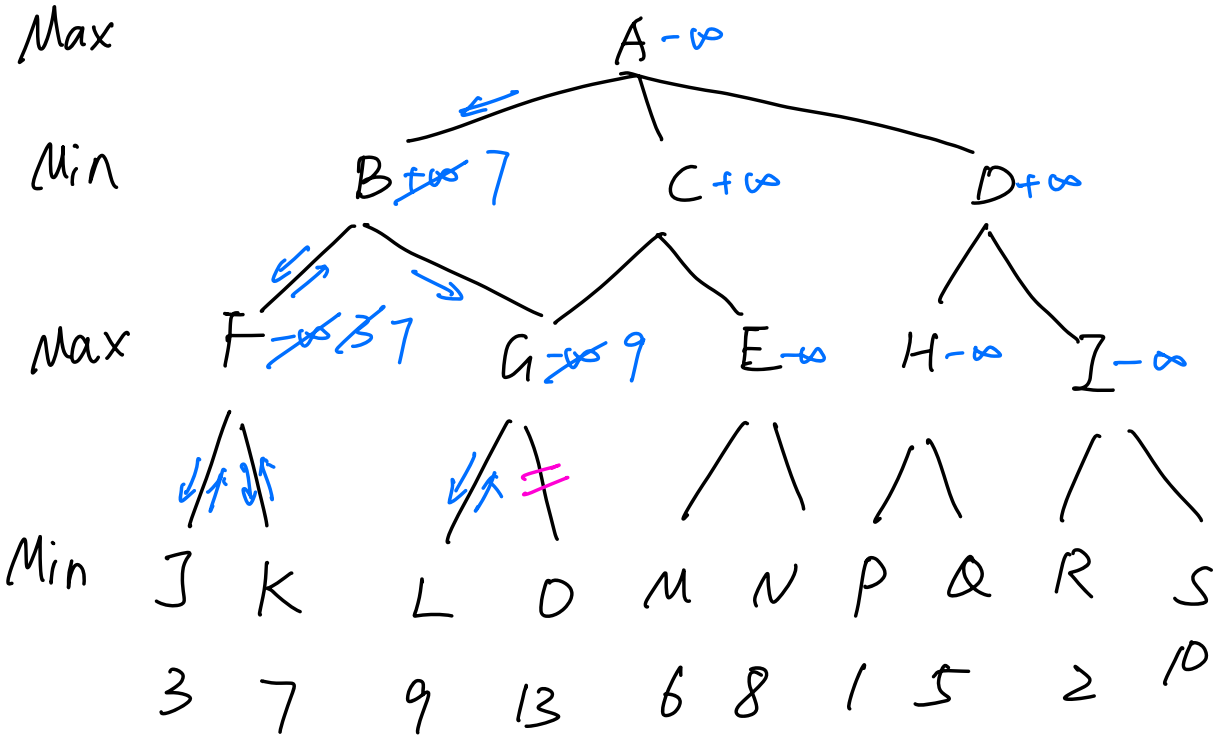
So he will choose the largest one

8 > 7 > 5 , C > B > D , so he will choose C

(ii) ① apply $\alpha - \beta$ pruning

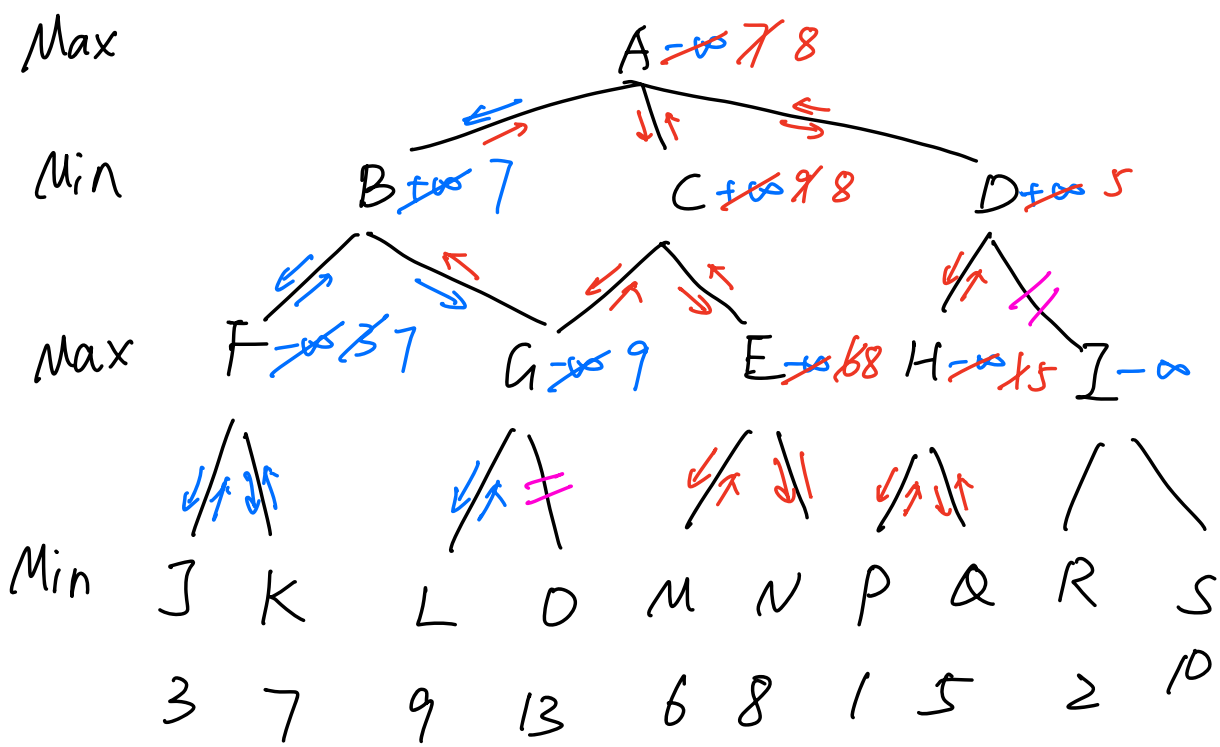


②



$9 > 7$, prune.

③



$5 < 8$ prune

(iii) not visited node.

O I R S

(b)