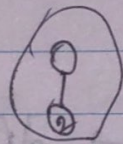
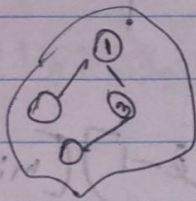


## \* Find Critical and Pseudo-Critical Edges in Minimum Spanning Tree

can use ~~prim's~~ prim's / Kruskal's algorithm

- Sort edges by weight.
- Union set to find parent & check if already in same set.



+ 1 & 2 are in different sets

+ 1 & 3 are in same set.

- If in different sets add mst weight & connect 2 sets. (set parent accordingly)

- Now we have mst with weight. Remove each edge & check for tree weight is greater.

$$\text{mst weight} < \text{tree weight}$$

then it's a critical edge.

- If removing that edge makes the same tree weight  $\rightarrow$  maybe sometimes it may

No. ....

Date. ....

be not included in spanning tree are created.

$\therefore$  Add that edge first & check for ~~ms~~ spanning tree weight = ~~ms~~ weight then it's a pseudo-critical edge.