

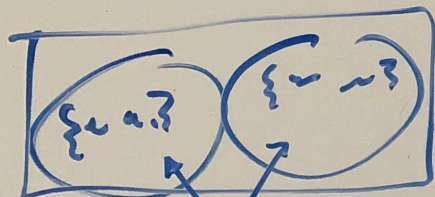
# ~ TIME COMPLEXITY ANALYSIS ~

Step 1) Sorting Edges

$$O(E^2) \text{ OR } O(E \log E)$$

USING QUICK SORT/  
MERGE SORT

Step 2) Walking through edges until  $MST = V - 1$ , have to compare in UnionFind using  $find()$  and potentially merge with  $union()$ .



$find() \rightarrow$  Splits in 2  $\rightarrow \log$

Does this until structure is full of all  $V$  so...  $\log V$

Believe time complexity then =  $O(E \log V)$