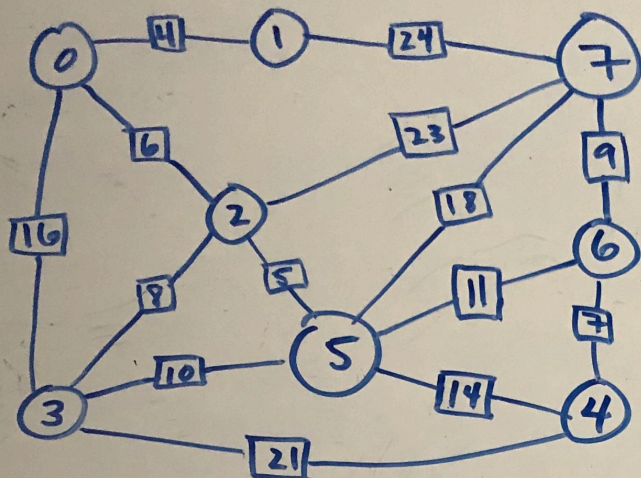


# Kruskal's Step-by-Step

HW 7

Weighted Graph "G."



Step 1) Sort the weighted edges smallest to largest.

$e(0,1)$   
 $e(2,5)$

$e(0,2)$

$e(4,6)$

$e(2,3)$

$e(6,7)$

$e(3,5)$

$e(5,6)$

$e(4,5)$

$e(0,3)$

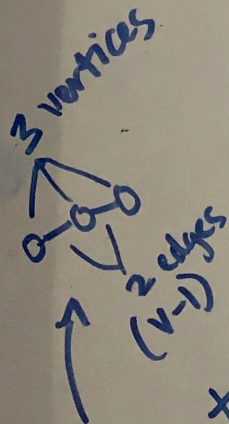
$e(5,7)$

$e(3,4)$

$e(2,7)$

$e(1,7)$

Step 2) Go through the sorted list of edges and add the next edge to Set T unless doing so would create a cycle in T.



Continue to look for edges to add to MST until MST Set length = # of vertices.

in order to check to see if there's a cycle being made, we'll use a UnionFind class to check to see if both vertices are already in Set T or not. If so → can't add to MST b/c it will make a cycle.