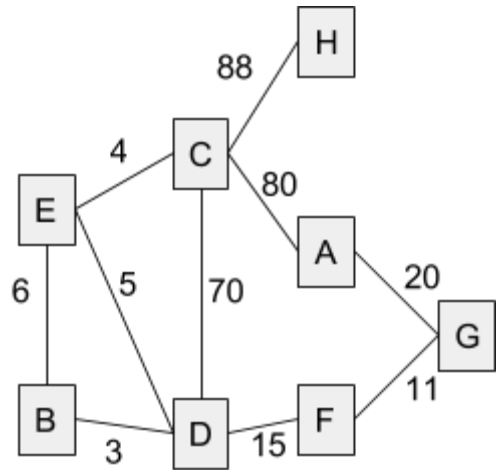Parts **c-e** refer to the following weighted undirected graph to the right.

c. Draw the intermediate state of the graph during execution of
Kruskal's Algorithm after four edges have been added:

d. Draw a **tree representation** of the union-find (disjoin sets) data structure, **without path compression**, at the same point in the algorithm:

e. Now suppose the algorithm has reached completion, but designers want to secretly add another edge to the graph of integer weight w. For each of the following conditions, circle whether adding an edge of that weight to the graph will, might, or will not change the edges in a MST:

If w < 4, a MST **[will / might / will not]** change.   If 5 < w < 7, a MST **[will / might / will not]** change.

If 20 < w, a MST **[will / might / will not]** change.   If 90 < w, a MST **[will / might / will not]** change.