

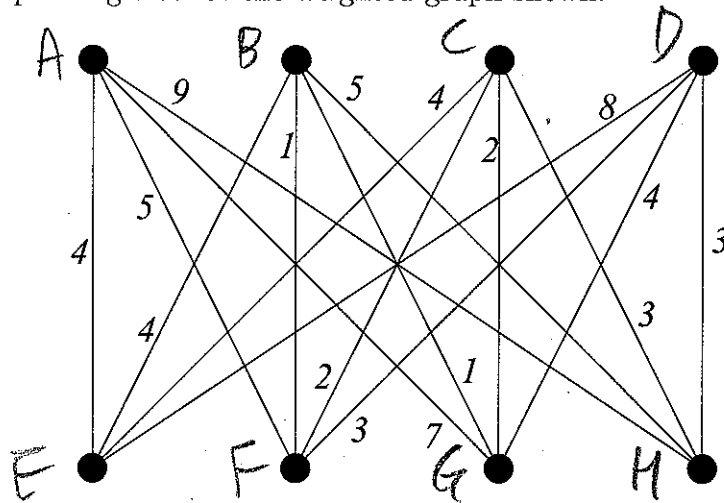
Mathematics 2602

Quiz 9

Prof. Margalit

9 November 2011

Find a minimal spanning tree for the weighted graph shown.



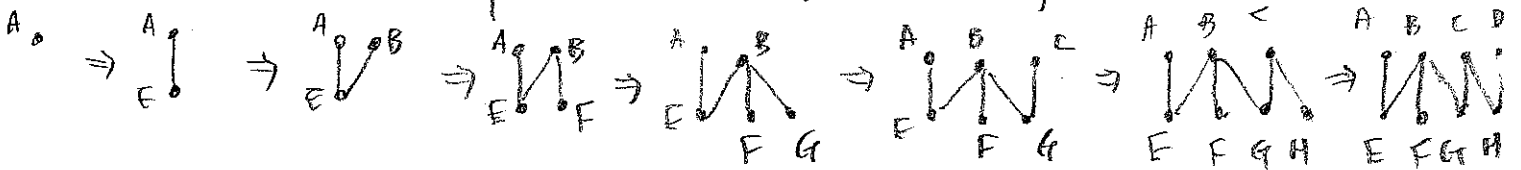
Let A-H denote the vertices as above.

If we use Kruskal's algorithm, we take the smallest available edges while avoiding a cycle: we take \overline{BF} , \overline{BG} , \overline{CG} (could have taken \overline{CF} but not both)

\overline{DH} , \overline{CH} , \overline{BE} , \overline{AE} \Rightarrow (This is not the only answer)

If we use Prim's algorithm, we choose a vertex and then increase the size of the tree optimally.

If we choose A (you could choose something else)



Either way, you should get a tree of weight 18.