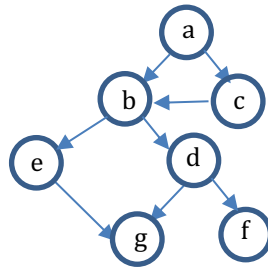


## CS220 graphs worksheet

name:

id:

Given a directed graph:



a) Draw the DFS spanning tree from a, where node priority is letter order

b) Draw the BFS spanning tree from a, where node priority is letter order

c) Which of the following is depth first search (DFS), breadth first search (BFS), or Topological Sort (TS) (any valid letter order, no priorities)

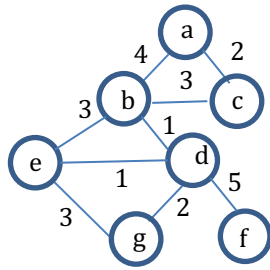
DFS          BFS          TS

a, b, c, d, e, f, g

a, b, d, g, f, e, c

a, c, b, e, d, g, f

Given the weighted graph



d) Draw the Minimum Spanning Tree

e) Draw the Single Source Shortest Path tree from a. Give the path lengths to each node.