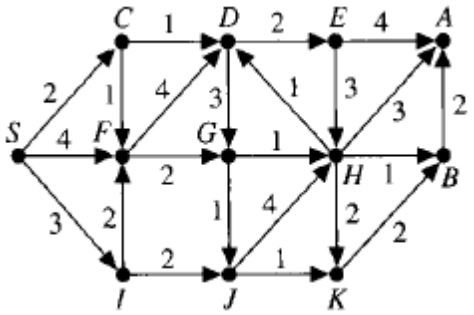
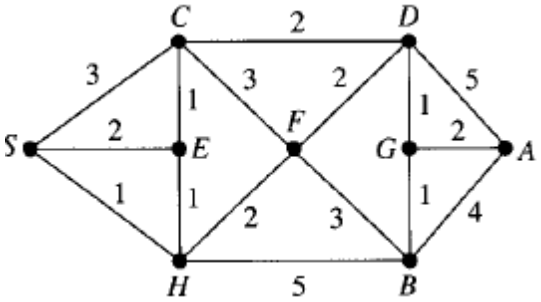
Due on 2018/01/16,

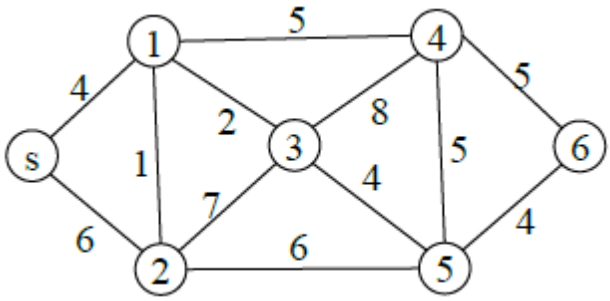
1. Calculate the shortest path from S to A by the following 2 methods
   (a) Dijkstra's algorithm using binary min-heap
   (b) Dijkstra's algorithm using Dial's implementation



2. Calculate the shortest path from S to A by the following 2 methods
   (a) Dijkstra's algorithm using binary min-heap
   (b) Dijkstra's algorithm using Dial's implementation



3. Using the graph in problem 2 above, calculate a shortest path from G to S by the following 2 methods
   (a) Dijkstra's algorithm using binary min-heap
   (b) Dijkstra's algorithm using Dial's implementation
4. Using the Floyd-Warshall algorithm to calculate the ALL-ALL distance matrix (7x7)



5. Using the Figure in Problem 4 to do a minimum spanning tree by Prim's algorithm
6. Similar as problem 5, but by Kruskal's algorithm
7. Using the Figure in Problem 4
   (a) do a DFS starting from s to draw a DFS tree
   (b) based on your result in (a), assign direction to all edges in the Figure of Problem 4 so that it is strongly connected