Exercises

Algorithm theory

Winter term 2008/09

Exercise sheet 13

TASK 1 (1 point):
Consider the following directed graph G.

1. Execute Dijkstra's algorithm starting from vertex **s**.

2. Execute the algorithm of Bellman and Ford starting from vertex **s**.

3. Compare the resulting shortest path trees.

For each execution of the while-loop specify all intermediary stages of the queue U, as well as the values in DIST[] that are changed.
Give the resulting array DIST[] and plot the subgraph of G consisting of all edges that constitute the shortest paths.