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.