

Exercise 1 Find the shortest path in the two following networks from node 0 to node 4, using Dijkstra and Bellman-Ford algorithms. Indicate the shortest path tree and the negative cycle, if it exists.

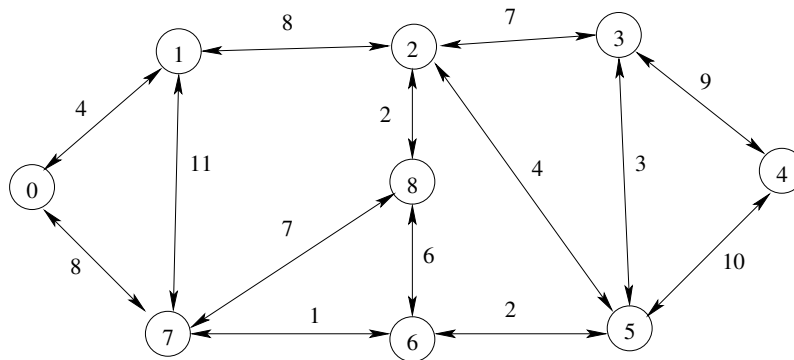


Figure 1 – Network 1

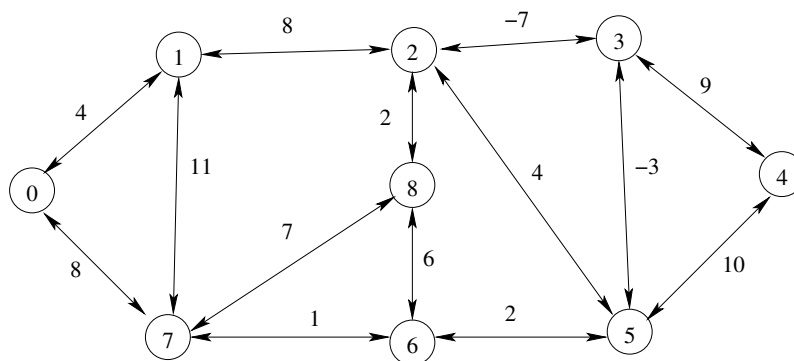


Figure 2 – Network 2

Exercise 2 Find the all-pairs shortest path in the following network, using the algorithm of Floyd-Warshall. Draw the resulting reachability graph.

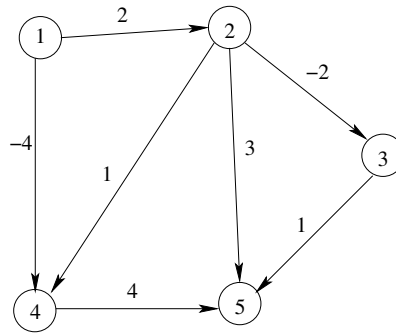


Figure 3 – Network 3

Exercise 3 Read the problem *I - A joint vacation problem* in EA2020_ProblemasAula in Mooshak and solve it using a graph algorithm for shortest path.