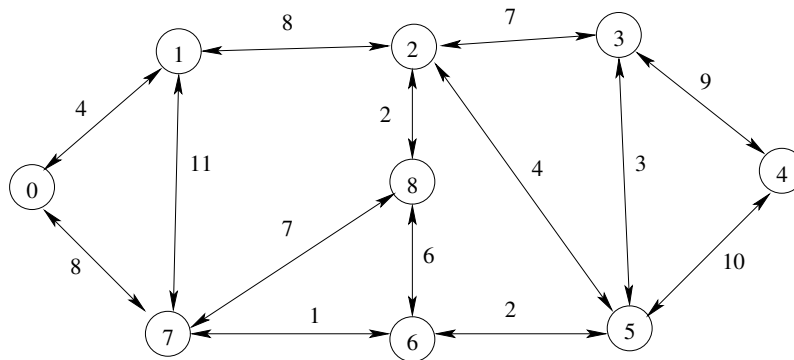
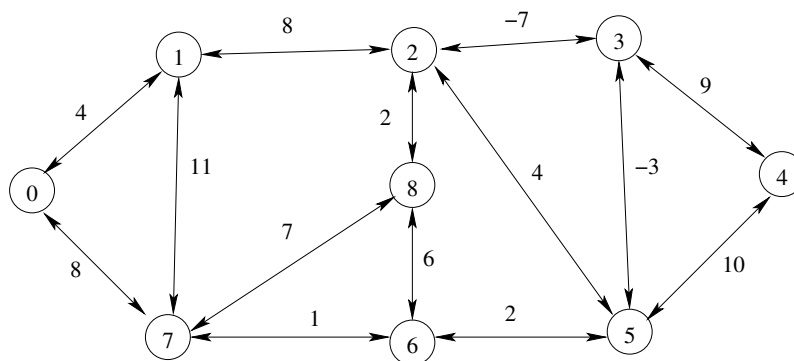


**Exercise 1** Find the shortest path in the two following networks from node 0 to node 4, using Dijkstra and Bellman-Ford algorithms. Indicate the shortest path tree and the negative cycle, if it exists.

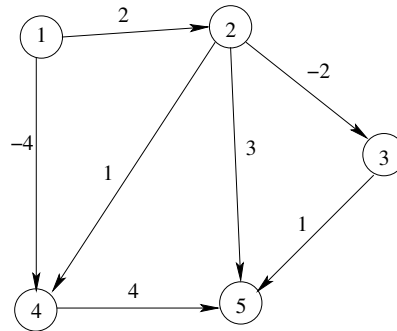


**Figure 1** – Network 1



**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 *A joint vacation problem!* in EA2022\_PL in Mooshak and solve it using the techniques discussed above.