# The Second Baltic Olympiad in Informatics
# Riga (Latvia), 18 – 20 April 1996
# SOLUTION

**A FAST JOURNEY** (Lithuania)

Suppose that the vehicles drive to the same directions on odd and on even days. Thus, we have the so called *Single-source shortest path* problem. The problem can be described as follows: *find the shortest path from a given source vertex to every other vertex in the graph.*

*Dijkstra's* algorithm solves this problem.

If vehicles drive to different directions on odd and on even days, it is still possible to apply the same algorithm with slight modifications. In this case not only leaving, but also entering edges should be relaxed in the oriented graph during the *relaxation* process.

The problem also contains one small trick. There might be two roads from the city *A* to the city *B*. If a shorter road in the input data file is written before a longer road, there is danger of data loss for those who use arrays to implement the graph.