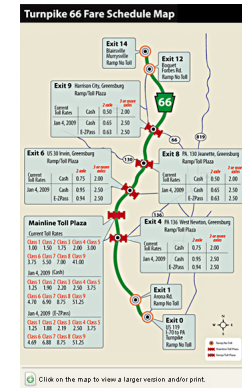# Travel costs

A turnpike consists of $N - 1$ stretches of road between N toll stations; each stretch of road has an associated cost of travel. It is trivial to tell the cost of going between any two stations in $O(N)$ time using only an array of the costs or in constant time using a table of $O(N^2)$ elements.

Is it possible to build a data structure that requires $O(N)$ space but allows the cost of any route to be computed in constant time?