

```
struct edge { int to, length; };

int findpath(vector< vector<edge> > &graph, int src, int target)
{
    vector<int> dist(graph.size(), INT_MAX);
    dist[src] = 0;
    set< pair<int,int> > active_vertices;
    active_vertices.insert( {0,src} );

    while(!active_vertices.empty())
    {
        int where = active_vertices.begin()->second;
        if (where == target) return dist[where];
        active_vertices.erase( active_vertices.begin() );
        for (auto edge : graph[where])
            if (dist[edge.to] > dist[where] + edge.length)
            {
                active_vertices.erase( { dist[edge.to], edge.to } );
                dist[edge.to] = dist[where] + edge.length;
                active_vertices.insert( { dist[edge.to], edge.to } );
            }
    }
    return INT_MAX;
}
```