

a) The state of the algorithm is represented by an array of visited cities, called closed

b) The successor function is;
~~if (node not in closed).~~
~~visit~~
if node == goal and len(closed) == len(map):
~~closed~~
~~state~~.add(node)
end
else if node not in closed:
~~closed~~
~~state~~.add(node)
~~continue~~ open = node.adjacent()
else:
node = open.next()

c) An admissible heuristic is one that underestimates;
for this problem $h(n)$ = path cost of nodes,

d) The path cost would be defined as the distance between nodes.

e) Goal criterion is to minimize $f(n)$

$$f(n) = g(n) + h(n)$$

$g(n)$ = \sum of path cost to this node

$h(n)$ = path cost of node to be traveled to.