function Dijkstra[[1]](#footnote-1) (Graph, source):

create vertex set Q

for each vertex v in Graph:

dist[v] ← INFINITY

prev[v] ← UNDEFINED

add v to Q

dist[source] ← 0

while Q is not empty:

u ← vertex in Q with min dist[u]

remove u from Q

for each neighbor v of u still in Q:

alt ← dist[u] + length(u, v)

if alt < dist[v]:

dist[v] ← alt

prev[v] ← u

return dist[], prev[]

1. https://en.wikipedia.org/wiki/Dijkstra%27s\_algorithm [↑](#footnote-ref-1)