```
// initialize the distance
for each x in routers:
    for each neighbor w of x:
        D[x][w][distance]=C[x][w] //distance from x to y is the weight of link between x and w
        D[x][w][via]=w
    for other router z:
        D[x][z][distance]=INF
        D[x][z][via]=INF

// sending the messages:
for each x in router:
    for each neighbor w of x:
        send D[x]
// LOOP:
while (messages!=null):
    for each x in routers:
        for each y in routers and x!=y:
            DT[x][y][z]=C[x][z]+d[z][y] //DT[x][y][z] means the distance from x to y via z
            D[x][y][distance]=min(DT[x][y])

        if D[x] changed:
            for each neighbor w of x:
                send D[x]=[D[x][y]: y in routers and D[x][y][via]!=w]
```