

Algorithm *BellmanFord*(*G*, *s*)

1. **for all** *v* \in *G.vertList*() ### initialize the distance of all the vertex from source *s*
2. **if** *v* = *s*
3. **setDistance**(*v*, 0)
4. **else**
5. **setDistance**(*v*, ∞)
6. **for** *i* in range(len(*G.vertList*()))
7. **for each edge** *e*=(*u*, *v*) \in *G.edges*()
 ### *G.edges*() is a collection of all the edges in the graph
 ### the edge *e* here has a direction from *u* to *v*
8. *r* \leftarrow **getDistance**(*u*) + **weight**(*e*) ### relax edge *e*
9. **if** *r* < **getDistance**(*v*)
10. **setDistance**(*v*, *r*) ### update the distance from *u* to *v*