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Algorithms, Dijkstra's Example - Sunday, February 28, 2021

For the following graph, what is the **length** of the shortest path from D to all other vertices?

```
FUNCTION Dijkstra(G, start_vertex)
    found = {}
    lengths = {v: INFINITY FOR v IN G.vertices}

    found.add(start_vertex)
    lengths[start_vertex] = 0

    WHILE found.length != G.vertices.length
        FOR v IN found
            FOR vOther, weight IN G.edges[v]
                IF vOther NOT IN found
                    vOther_length = lengths[v] + weight
                    IF vOther_length < min_length
                        min_length = vOther_length
                        vMin = vOther
        found.add(vMin)
        lengths[vMin] = min_length

    RETURN lengths
```
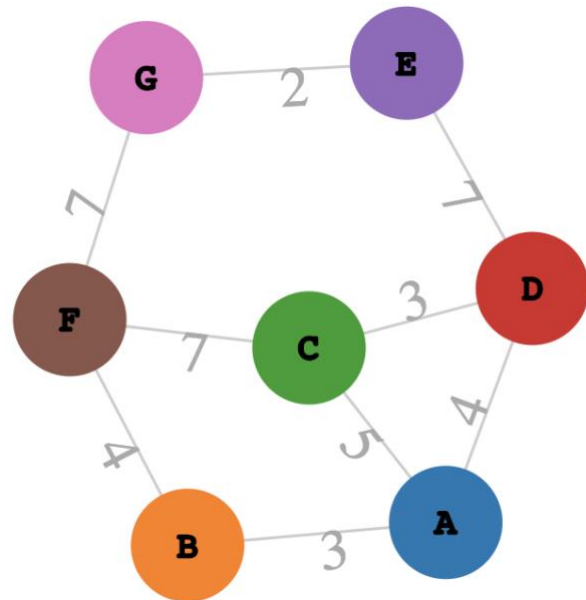

A	B	C	D	E	F	G
			0			

You must show your work below to receive full credit. Specifically, show your candidate edges for each iteration of Dijkstra's Shortest Path Algorithm. `min_length` is set to infinity at the top of every while-loop iteration.