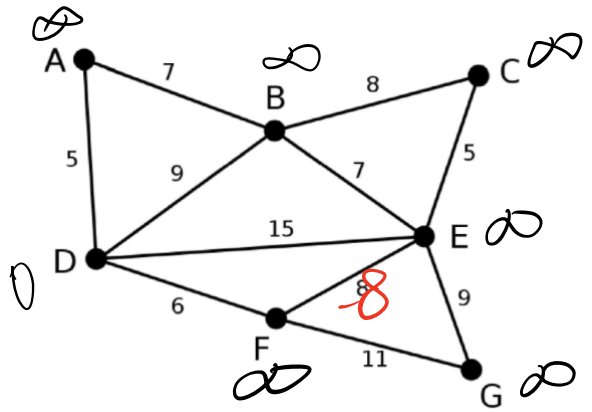

From this graph, we have a negative weight EF(-8).

Let's find the difference of path from D to E.

① we choose D as starting vertice, assign 0 to D, and infinite path values to all other vertices.

② So, to adjacent vertices of D and update their path length, make them as visited.

visited = {D, A, B, E, F}

unvisited = {C, G}

Once a vertice mark visited, its value doesn't change.

③ Go to unvisited vertices and update their path length.

So, according to Dijkstra's algorithm, path length from

D to E is 15, but in actually, path length from D to E is -2. (D $\xrightarrow{6}$ F $\xrightarrow{-8}$ E).

So, we can get Dijkstra's algorithm will get incorrect answer when there's one or more edges is negative.