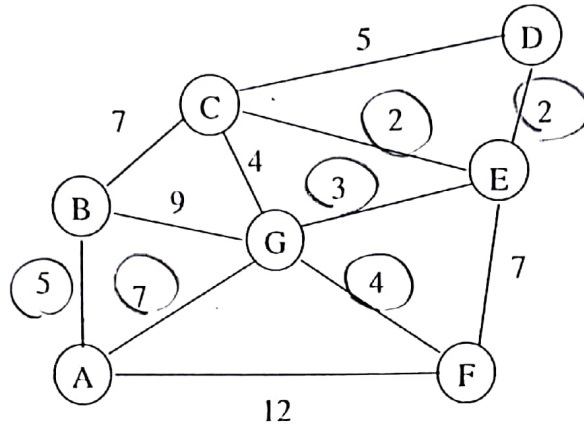# Dijkstra Worksheet

Execute Dijkstra's algorithm on the provided graph starting at vertex A. Indicate which vertex was selected at each iteration of the **while** loop and show the contents of the priority queue.

Iteration 1

$A = 0$ $B = \infty$ $C = \infty$ $D = \infty$ $E = \infty$ $F = \infty$ $G = \infty$

Iteration 2

$A = 0$ $B = 0$ $C = \infty$ $D = \infty$ $E = \infty$ $F = 1\text{Y}$ $G = V$

Iteration 3

$A = 0$ $B = 0$ $C = 1\text{Y}$ $D = \infty$ $E = \infty$ $F = 1\text{Y}$ $G = V$

Iteration 4

$A = 0$ $B = 0$ $C = 1\text{r}$ $D = \infty$ $E = 1o$ $F = 11$ $G = V$

Iteration 5

$A = 0$ $B = 0$ $C = 1\text{r}$ $D = 1\text{Y}$ $E = 1o$ $F = 11$ $G = V$

Iteration 6

$A = 0$ $B = 0$ $C = 1\text{r}$ $D = 1\text{r}$ $E = 1\text{r}$ $F = 11$ $G = V$