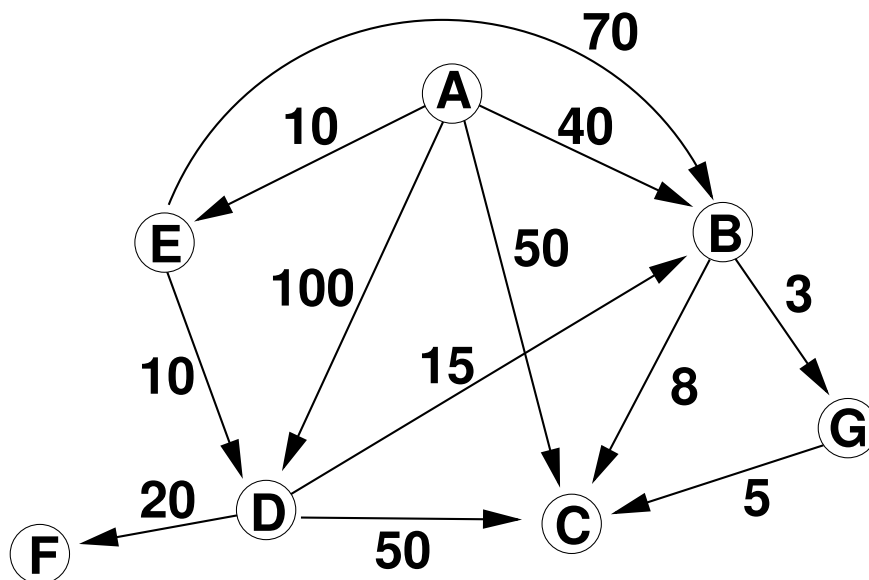


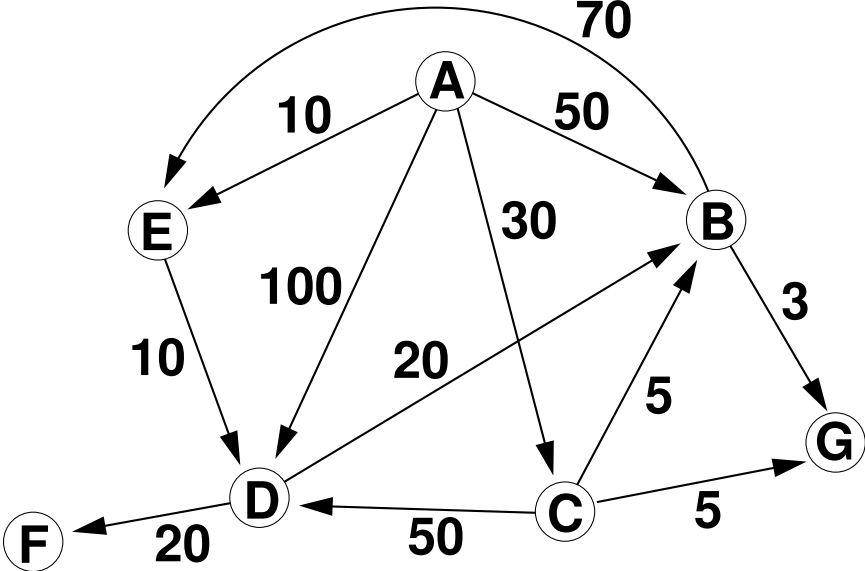
For each of the following graphs, fill in the table to show the sets  $S$ ,  $V - S$ , and  $Short(i)$  using Dijkstra's Shortest Path Algorithm and the start node noted in the first step

Graph  $G_1$



| Step | $S$ | $V - S$ | $short(i)$ |   |   |   |   |   |   |
|------|-----|---------|------------|---|---|---|---|---|---|
|      |     |         | A          | B | C | D | E | F | G |
| 0    | A   | BCDEFG  | 0          |   |   |   |   |   |   |
| 1    |     |         | 0          |   |   |   |   |   |   |
| 2    |     |         | 0          |   |   |   |   |   |   |
| 3    |     |         | 0          |   |   |   |   |   |   |
| 4    |     |         | 0          |   |   |   |   |   |   |
| 5    |     |         | 0          |   |   |   |   |   |   |
| 6    |     |         | 0          |   |   |   |   |   |   |

Graph  $G_2$



| Step | $S$ | $V - S$ | $short(i)$ |   |   |   |   |   |   |
|------|-----|---------|------------|---|---|---|---|---|---|
|      |     |         | A          | B | C | D | E | F | G |
| 0    | A   | BCDEFG  | 0          |   |   |   |   |   |   |
| 1    |     |         | 0          |   |   |   |   |   |   |
| 2    |     |         | 0          |   |   |   |   |   |   |
| 3    |     |         | 0          |   |   |   |   |   |   |
| 4    |     |         | 0          |   |   |   |   |   |   |
| 5    |     |         | 0          |   |   |   |   |   |   |
| 6    |     |         | 0          |   |   |   |   |   |   |