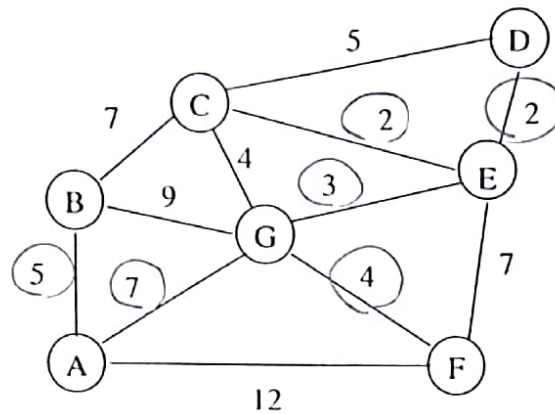


Prim Worksheet



Start with vertex A in a set by itself $T = \{A\}$ and with T_{prim} empty. At each step, choose a vertex not in T that can be joined to a vertex in T using an edge of least cost. Add the vertex to T and the edge to T_{prim} . Show T and T_{prim} at the end of each iteration

- | | | | |
|----|---------------------------|----------|---|
| I1 | $\{A, B\}$ | $AB = 5$ | $\left. \begin{array}{l} \text{I1} \\ \text{I2} \\ \text{I3} \\ \text{I4} \\ \text{I5} \\ \text{I6} \end{array} \right\} \xrightarrow{+} \text{Prim}$ |
| I2 | $\{A, B, G\}$ | $AG = 7$ | |
| I3 | $\{A, B, G, E\}$ | $GE = 3$ | |
| I4 | $\{A, B, G, E, C\}$ | $EC = 2$ | |
| I5 | $\{A, B, G, E, C, D\}$ | $ED = 2$ | |
| I6 | $\{A, B, G, E, C, D, F\}$ | $GF = 4$ | |