# Weighted Graph:

# Dijkstras
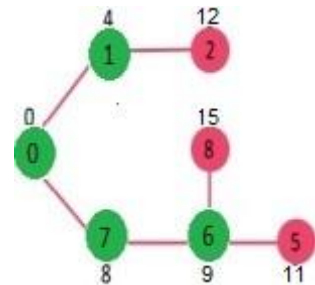


Finished:

# Kruskal
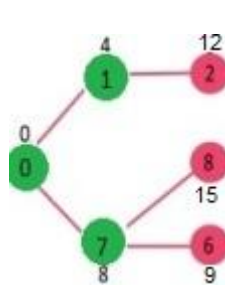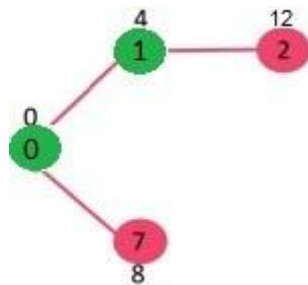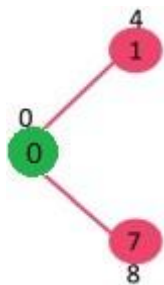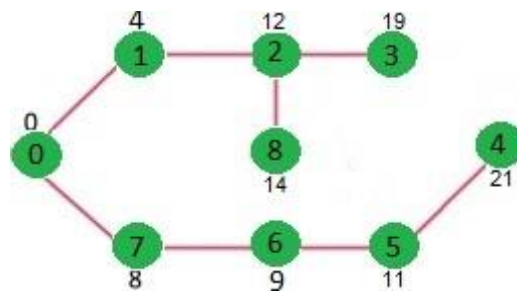
**1.** *Pick edge 7-6:* No cycle is formed, include it.

7 —1— 6

**2.** *Pick edge 8-2:* No cycle is formed, include it.

2
|2
8

7 —1— 6
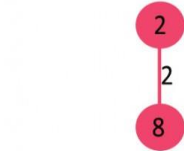
**3.** *Pick edge 6-5:* No cycle is formed, include it.

2
|2
8

7 —1— 6 —2— 5
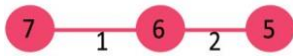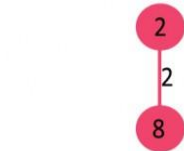
**4.** *Pick edge 0-1:* No cycle is formed, include it.

1        2
4       |2
0        8

7 —1— 6 —2— 5
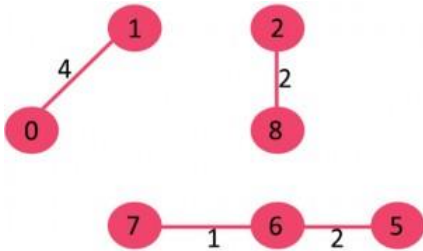
**5.** *Pick edge 2-5:* No cycle is formed, include it.

1        2
4       |2
0        8   4

7 —1— 6 —2— 5
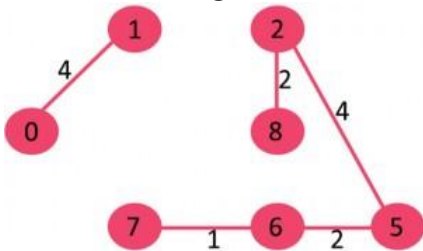
**6.** *Pick edge 8-6:* Since including this edge results in cycle, discard it.
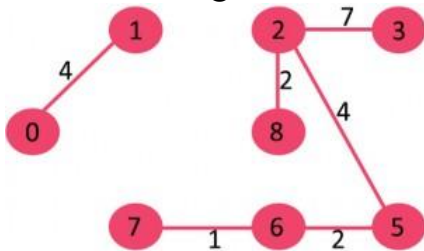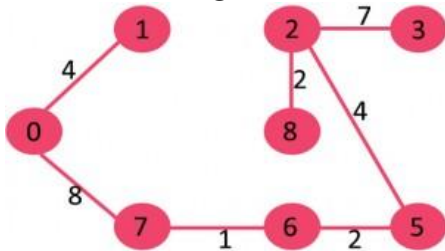
**7.** *Pick edge 2-3:* No cycle is formed, include it.
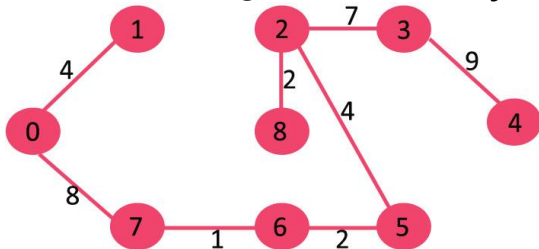


**8.** *Pick edge 7-8:* Since including this edge results in cycle, discard it.

**9.** *Pick edge 0-7:* No cycle is formed, include it.
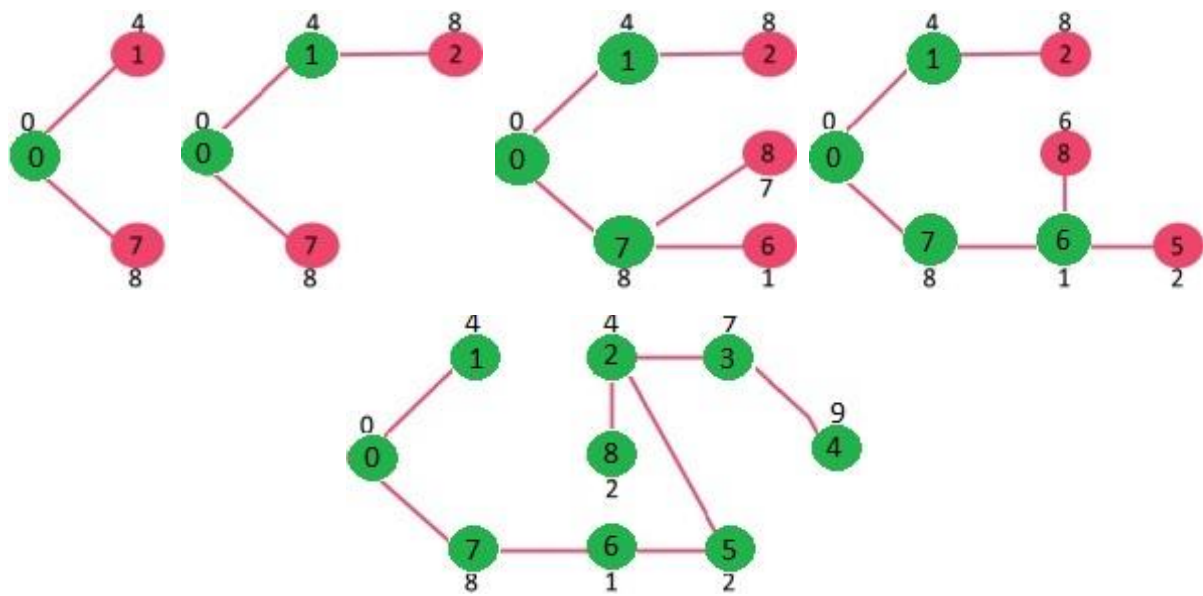


**10.** *Pick edge 1-2:* Since including this edge results in cycle, discard it.

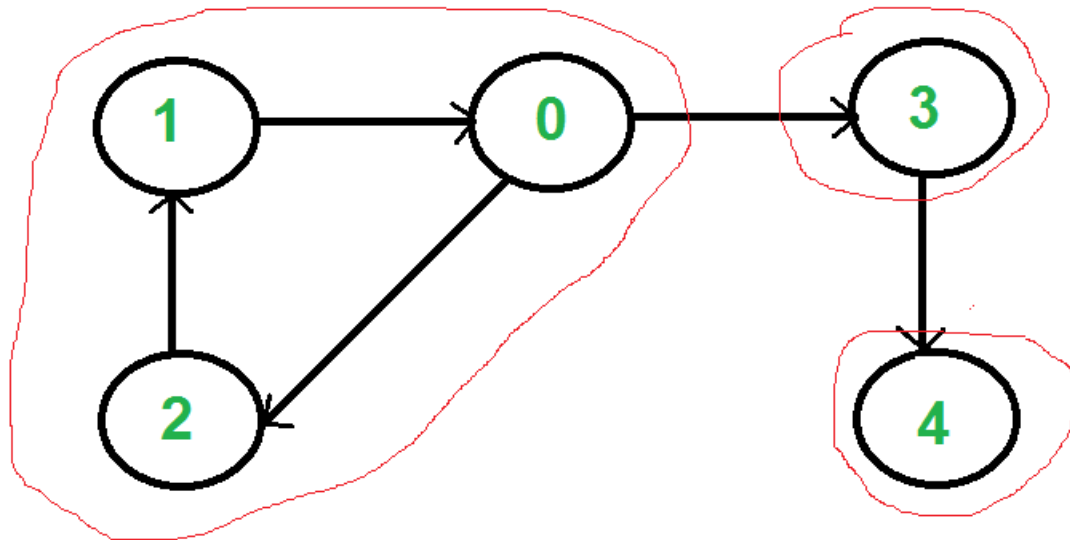**11.** *Pick edge 3-4:* No cycle is formed, include it.



Since the number of edges included equals (V − 1), the algorithm stops here

# Prim

# Strongly Connected Components



## Graph of SCCs



## SCCs in reverse graph