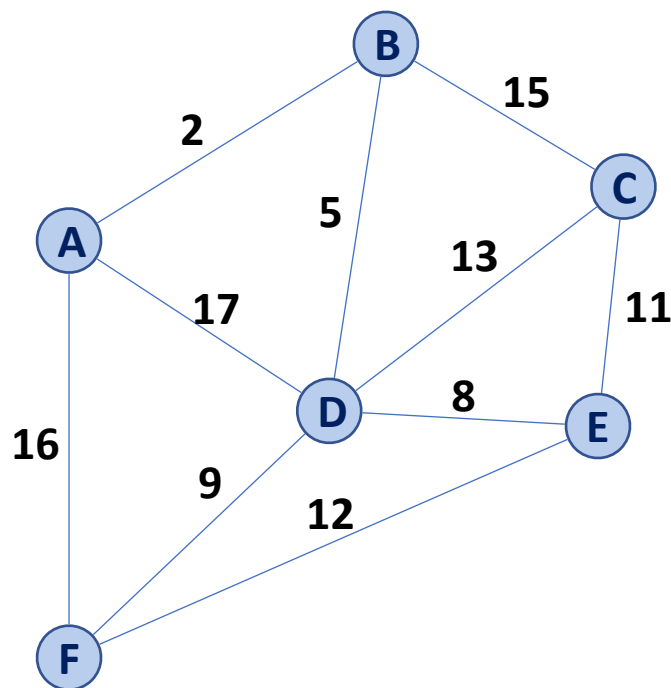


Prim's Algorithm



```
1 PrimMST(G, s):
2   Input: G, Graph;
3         s, vertex in G, starting vertex
4   Output: T, a minimum spanning tree (MST) of G
5
6   foreach (Vertex v : G):
7     d[v] = +inf
8     p[v] = NULL
9   d[s] = 0
10
11  PriorityQueue Q // min distance, defined by d[v]
12  Q.buildHeap(G.vertices())
13  Graph T // "labeled set"
14
15  repeat n times:
16    Vertex u = Q.removeMin()
17    T.add(u)
18    foreach (Vertex v : neighbors of u not in T):
19      if cost(v, u) < d[v]:
20        d[v] = cost(v, u)
21        p[v] = u
22
23  return T
```