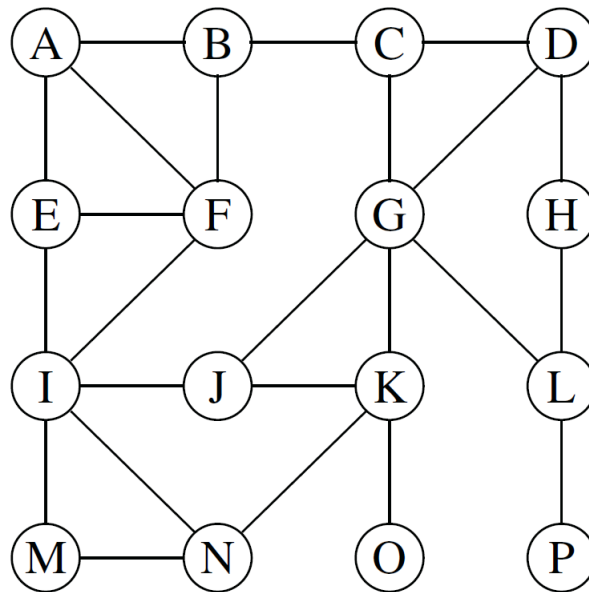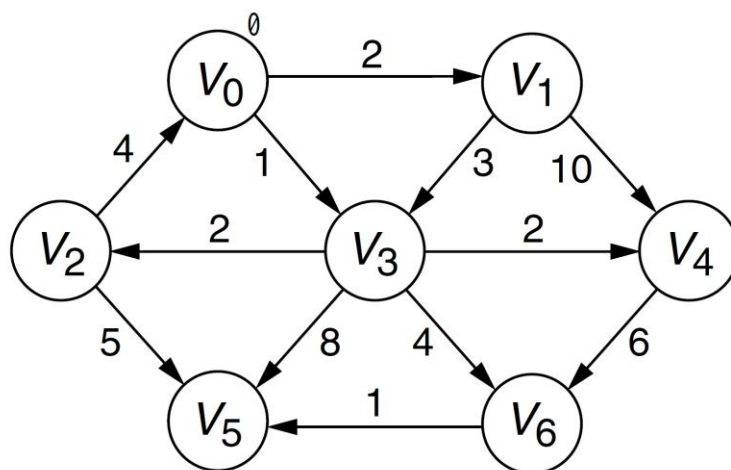**Graph Algorithm**

Part 1 (100 points): This part requires that you to successfully run the graph code provided and create graph data structures for the following two graphs:

Graph 1:

Graph 2:

Part 2 (50 points, Bonus):

Implement one of the graph traversal algorithms (BFS or DFS). Test your implementation using graph 1. Print out the ordered list of vertices comprising the path from source to "A" to destination "O" using the traversal algorithm you implemented.

Part 3 (50 points, Bonus):

Implement Dijkastra's shortest path algorithm. Test your implementation using graph 2. Starting from V_0, print out the list of vertices reachable from V_0 along with their length of shortest path.

Hint: You have to implement your min Priority queue class.