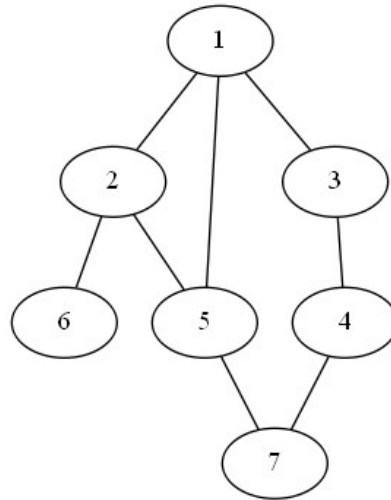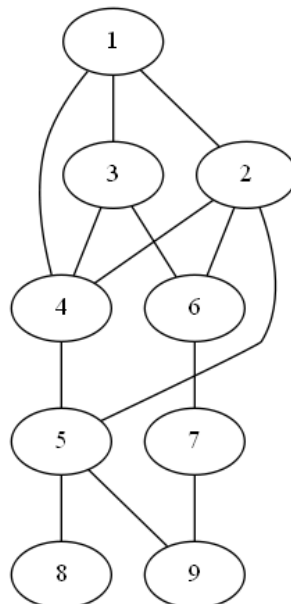Name: __Joshua Schmidt___   Date: _____10/3/2019_____

Pledge: ___I pledge my honor that I have abided by the Stevens Honor System._____

For each of the graphs below, list the order in which the vertices are visited in a **breadth-first search**, starting with vertex 1. If there are multiple vertices adjacent to a given vertex, visit the adjacent vertex with the lowest value first. Then repeat the process for **depth-first search**.
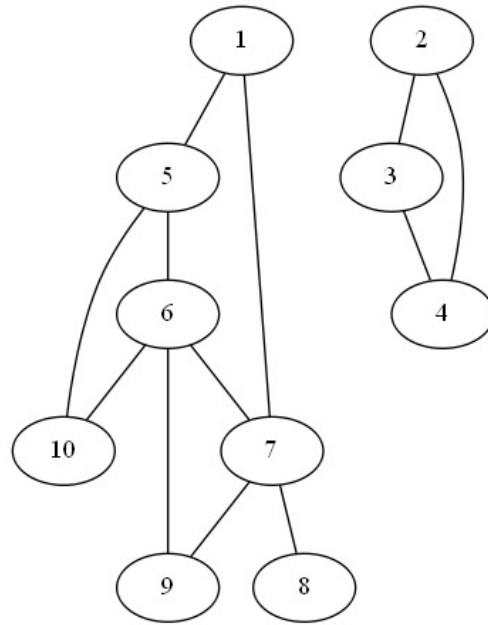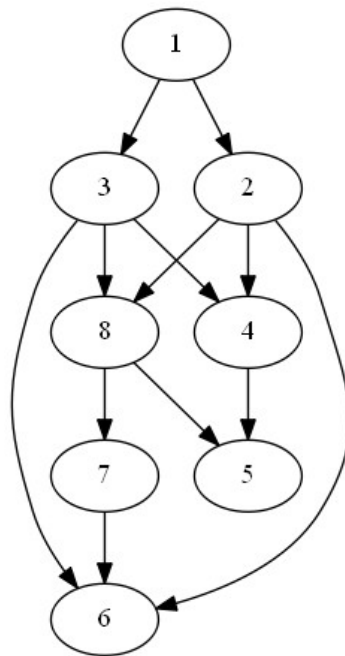
1.

BFS: _____1 2 3 5 6 4 7_____

DFS: _____1 2 5 7 4 3 6_____

2.

BFS: _____1 2 3 4 5 6 8 9 7_____
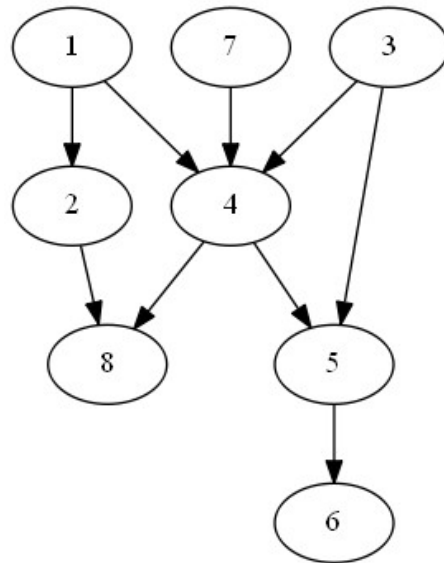
DFS: _____1 2 4 3 6 7 9 5 8_____

3.

BFS: _____1 5 7 6 10 8 9 2 3 4_____

DFS: _____1 5 6 7 8 9 10 2 3 4_____

For each of the graphs below, list the order in which the vertices are visited in a **topological sort**, starting with vertex 1. If there are multiple vertices adjacent to a given vertex, visit the adjacent vertex with the lowest value first.

4.

Topological sort: _____1 2 3 4 8 5 7 6_____

5.

Topological sort: _____1 2 3 7 4 5 6 8_____