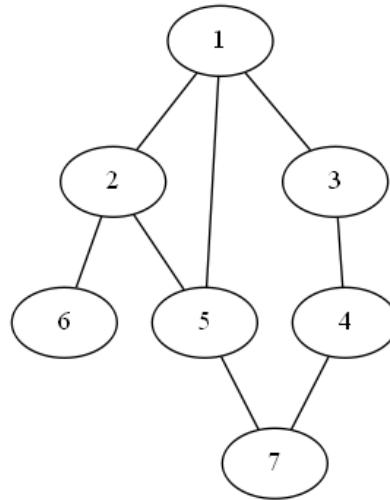Name: _____Khayyam Saleem_____   Date: ___10/07/16_____

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**.
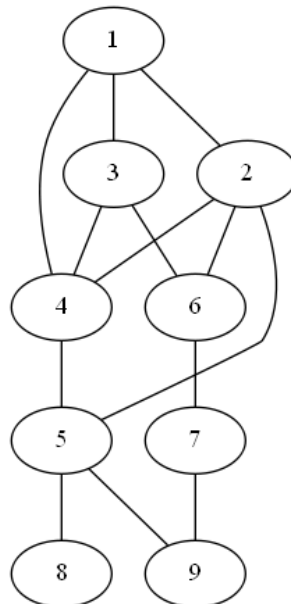
1.

BFS: _____1, 2, 3, 5, 6, 4, 7_____
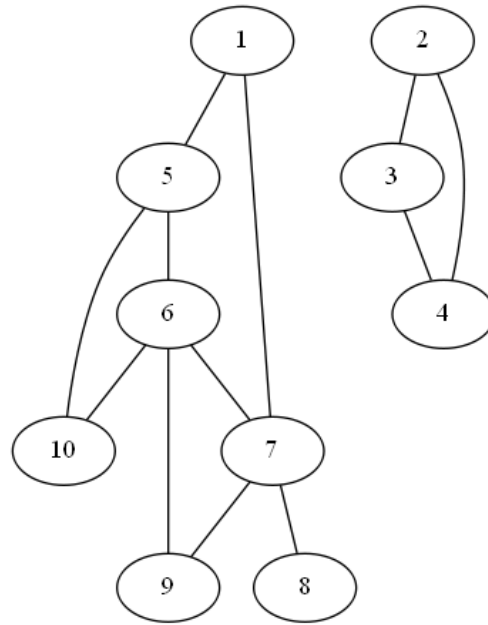
DFS: _____1, 2, 5, 7, 4, 3, 6_____

2.

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

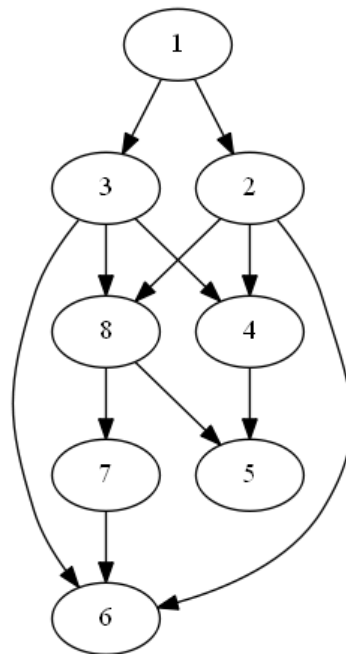DFS: _____1, 2, 4, 3, 6, 7, 9, 5, 8_____

3.

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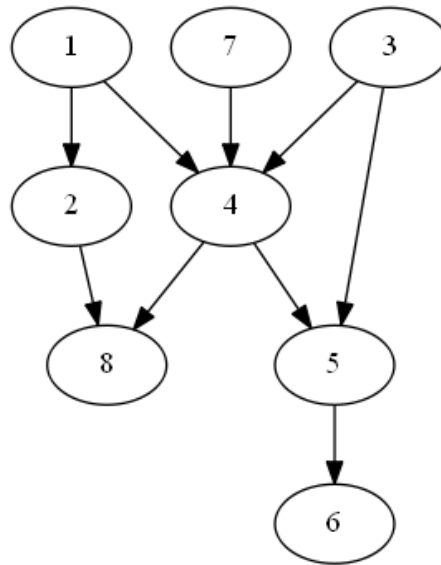
DFS: _____1, 5, 6, 7, 8, 9, 10, 2, 3, 4_____

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_____