Grant Nakashima

Assignment 7

1. The code is stored by adjacency list. We are checking if the vertices are adjacent go each other.
2. Graph 1,4 and 5 are connected. All of the vertexes are reachable so this makes the graph connected. Graph 2,3 were the only two graphs that ended up with unreachable vertexes.
3. The output would not change. The result would end up being the same. If the graphs were directed then the output could change or there is a chance you might not be able to go back because the direction from one node to another is one direction.
4. Pros: (BFS) will not go down infinite path,(BFS) will find solution because it will check all paths,(DFS) can find the path quickly if it gets lucky.  
   Cons: (BFS) not as fast as the (DFS), (DFS) could go down an infinite path. (DFS) could have to back track many times.
5. The Big O execution time if a node is reachable from another node is O(|V| + |E|).