

Graph Theory Assignment #4 Additional Problems

Find an algorithm to solve the following problems, and determine the running time of your algorithm. You do not need to find the fastest algorithm to solve the problem.

1. Given a simple graph G , find the independence number $\alpha(G)$.
2. Given a simple graph G , determine whether G has an Eulerian circuit.
3. Given a simple graph G , determine whether G has a Hamiltonian cycle.
4. Given a simple graph G , find the length of the longest path in G .