

CS314: Algorithms

Homework 1

Required Problems

1. Problem 6 from Chapter 2 of the text (on page 68)

2. Problem 2 from Chapter 3 of the text (on page 107)

3. Extra Credit: Consider the following 3 statements about a graph G :
 - (a) G is connected
 - (b) G does not contain a cycle
 - (c) G has $n - 1$ edges

Prove that any two of the statements immediately implies the third. Note that this will require 3 different proofs!