CSci 1302 Assignment 8

Due Wednesday, Nov. 1 in class

Problem 1 (4 points). Fibonacci numbers are defined as $F_0 = 0, F_1 = 1$, and for all $k \geq 2$ $F_k = F_{k-1} + F_{k-2}$. Use strong induction to prove the following property of Fibonacci numbers: $F_{n+m-2} = F_n F_{m-1} + F_{n-1} F_{m-2}$. Please point out the part of the proof where you had to use strong induction.

Problem 2 (9 points). Exercises 4, 5 p. 253, exercise 9 p. 254.

Problem 3 (5 points). Exercise 11 p. 254.