

CSci 1302 Assignment 6

Due Monday, October 31st

Problem 1 (16 points). Exercises 9, 11, 14, and 16 p. 226.

Problem 2 (12 points). Exercises 22, 25, and 33 p. 234.

Problem 3 (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 4 (12 points). Exercises 23, 29 p. 234.

Problem 5 (6 points). Exercise 4 p. 253, Exercise 9 p. 254.