

Fall 2014, Math 302.504 - Homework Set 8
Due: Wednesday, November 5, 2014
Recursive Definitions

Name: _____

Given below are the required problems for this assignment. Please submit your answers on a printed copy of this sheet.

(1) Let f_n denote the n -th Fibonacci number. Show that

$$f_0 - f_1 + f_2 - f_3 + \cdots - f_{2n-1} + f_{2n} = f_{2n-1} - 1.$$

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- (2) Write pseudocode for a recursive implementation of binary search. (You may add extra parameters to your function if it makes the recursion easier.)