Algorithms Fall 2016 Homework 2

Due Mon. Sep. 26, in Class

September 20, 2016

Related reading:

Chapter 15, 16

Either typewrite or handwrite your answers clearly. You will lose points if the TA cannot read your handwriting.

Problem 1: (30 points)

Problem 15-9 (page 410). Also write the pseudo-code for your algorithm.

Hint: You may assume the L array is sorted. Then prepend 0 as the first element of L and append n as the last element of L. This preprocessing could make it easy to express the problem in a recursive form. Define the subproblems with regard to (i, j) indices of L.

Problem 2: (20 points)

Exercise 16.1-1 (page 421)

Problem 3: (20 points)

Exercise 16.2-3 (page 427)

Problem 4: (30 points)

Exercise 16.3-5 (page 436)