CS255, Spring 2014, SJSU
Homework 2

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Due: Feb 24, 2014

Problem 1

Exercise 2.3-4, page 39 from textbook.

Problem 2

Exercise 4.4-4, page 93 from textbook.

Problem 3

Exercise 4.5-1, page 96 from textbook.

Problem 4

Exercise 4.5-2, page 97 from textbook.

Problem 5

Problem 4-1, page 107 from textbook.

Problem 6

Write a divide and conquer algorithm to compute the minimum and maximum of an array of n integers. Write and solve the recurrence for the worst-case running time of your algorithm.

Problem 7

Exercise 2.3-7, page 39 from textbook.

Problem 8

Exercise 4.1-2, page 74 from textbook.

Problem 9

Given an array with n distinct integers sorted in ascending order, we would like to know if there is an index i such that $A[i] = i$. Specify a divide and conquer algorithm to solve this problem with running time $O(\lg n)$.

Problem 10

Problem 7-2, page 186 from textbook.