CS314: Algorithms
Homework 5, due Tuesday, March 24

This homework will be graded by oral presentations to the teacher. There will be a sign-up sheet in class on Monday, March 16; you will be asked to pick a half hour spot sometime on Tuesday for your group to meet with the instructor. Be sure to check your schedule (and that of your partner, if you have one) so that you have several options for when to meet ready to go.

As always, when asked to design an algorithm, you must also include a proof of correctness and running time for that algorithm. In particular, if the problems asks you to design an algorithm with a particular run time, you must still analyze *your* algorithm to prove that it meets that running time.

Required Problems

1. Chapter 4, Problem 1

2. Chapter 4, Problem 2

3. Chapter 4, Problem 19

   (You may assume that all bandwidths are unique to simplify your analysis and proof.)

4. Chapter 4, Problem 21