CMSC 451: Homework 3, Spring 2006

Due at the beginning of class on March 7, 2006.

If you cannot come up with algorithms that run in the required time, then provide (correct) slower algorithms for partial credit. Write your answers using pseudo-code in the same style as the textbook. These make the algorithm description precise, and easy to read (as opposed to code in C or some other language).

The problems should be done by yourself: without any collaboration, or help from sources such as the Web.

NOTE: You must prove the correctness of your algorithms.

1. Problem 2, page 189 (10 points)
2. Problem 3, pages 189-190 (10 points)
3. Problem 9, page 192 (10 points)
4. Problem 1, page 246 (10 points)
5. (For graduate students only) Problem 4, page 190 (10 points)