

CSCI 4320 (Principles of Operating Systems), Fall 2007

Homework X

Assigned: December 10, 2007.

Due: December 12, 2007, at 5pm. *Not accepted late without prior consent of instructor.*

Credit: Up to 20 extra-credit points.

1 General Instructions

Answer as many (or few) of the following questions as you like. (Notice, however, that you can receive at most 20 extra-credit points.)

I am also open to the possibility of giving extra credit for other work — other problems from the textbook, a report on something course-related, etc. If you have an idea for such a project, let's negotiate (by e-mail or in person).

For this assignment, please work individually, without discussing the problems with other students. If you want to discuss problems with someone, talk to me.

2 Problems from Chapter 9 (Security)

For these problems, please submit hard copy (in my mailbox in the department office or under my door).

1. (2 points) Answer question 3 on p. 667 of the textbook. (*Clarification:* i, j, k , etc., represent integers in the range from 0 through $n - 1$ inclusive.)
2. (2 points) Answer question 6 on p. 667 of the textbook. (*Hint:* What are the odds of being able to guess the password if you know its length? if you don't?)
3. (2 points) Answer question 7 on p. 667 of the textbook.
4. (2 points) Answer question 11 on p. 668 of the textbook.
5. (2 points) Answer question 16 on p. 668 of the textbook.
6. (2 points) Answer question 28 on p. 669 of the textbook.

3 Problems from Chapter 10 (UNIX and Linux)

For these problems, please submit hard copy (in my mailbox in the department office or under my door).

1. (2 points) Answer question 6 on p. 758 of the textbook. (Assume that commands **a**, **b**, **c**, **d**, **e**, and **f** all run for a long time.)
2. (2 points) Answer question 21 on p. 760 of the textbook.
3. (2 points) Answer question 23 on p. 760 of the textbook.

4. (2 points) Answer question 27 on p. 760 of the textbook.
5. (2 points) Answer question 35 on p. 761 of the textbook.
6. (2 points) Answer question 41 on p. 761 of the textbook.

4 Programming Problems

Do one or more of the optional programming problems from previous assignments. (No, you can't get credit again for ones you already did.) Submit source code and other files by e-mail, as for previous assignments.