

# CSCI 2321 (Principles of Computer Design), Spring 2002

## Homework X

**Assigned:** April 29, 2002.

**Due:** May 7, 2002, at noon. *Not accepted late.*

**Credit:** Up to 40 extra credit points.

### 1 General instructions

Answer as many (or as few) of the following questions as you like. (Notice, however, that you can receive at most 40 extra-credit points.) You may write out your answers by hand or using a word processor or other program, but please submit hard copy (in my mailbox in the department office is fine). If the problem asks you to write code (either MIPS assembler or C/C++), please also submit a copy of your code by e-mail, as described in Submitting Source Code by E-mail<sup>1</sup>.

### 2 Problems

1. (5 points) Do problem 1.55 on p. 50 of the textbook.
2. (10 points) Do problem 3.22 on p. 203 of the textbook.
3. (10 points) Do problem 3.23 on p. 203 of the textbook.
4. (5 points) Do problem 4.22 on p. 326 of the textbook.
5. (10 points) Do problem 4.29 or problem 4.30 on p. 327 of the textbook.
6. (10 points) Do problem 5.8 on p. 427 of the textbook.
7. (10 points) Do problem 5.9 on p. 427 *and* problem 5.18 on p. 429 of the textbook.
8. (10 points) Do problem 5.22 on p. 430 of the textbook.
9. (10 points) Do problem 5.29 on p. 430 of the textbook.
10. (Up to 40 points.) Propose and solve one or more problems relevant to this course. Credit will depend on the difficulty and relevance of the problem(s) and the success with which you solve it/them. (Some possibilities include writing a program in MIPS assembler that does something interesting, or doing additional problems of your choice from the textbook.)

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<sup>1</sup>[http://www.cs.trinity.edu/~bmassing/CS2321\\_2002spring/Notes/pgmguidelines-mail/index.html](http://www.cs.trinity.edu/~bmassing/CS2321_2002spring/Notes/pgmguidelines-mail/index.html)