

CSCI 2321 (Principles of Computer Design), Spring 2004

Homework 2

Assigned: January 23, 2004.

Due: January 30, 2004, at 5pm.

Credit: 20 points.

1 Problems

Do the following problems. You may write out your answers by hand or using a word processor or other program, but please submit hard copy, either in class or in my mailbox in the department office.

1. (2 points) Do problem 2.1 on p. 90 of the textbook. (Your answers should be in the form “M1 is faster, by a factor of n ” or “M2 is faster, by a factor of n ” — whichever is appropriate.)
2. (2 points) Do problem 2.2 on p. 90 of the textbook.
3. (2 points) Do problem 2.3 on p. 90 of the textbook.
4. (2 points) Do problem 2.4 on p. 90 of the textbook.
5. (2 points) Do problem 2.5 on p. 90 of the textbook.
6. (2 points) Do problem 2.10 on p. 91 of the textbook. (Your answer should be in terms of MIPS (millions of instructions per second, in this context).)
7. (4 points) Do problem 2.11 on p. 92 of the textbook. (Your answer should be in the form “M1 is faster, by a factor of n ” or “M2 is faster, by a factor of n ” — whichever is appropriate.)
8. (4 points) Do problem 2.12 on p. 92 of the textbook.