

SI232 – Homework #4 (Chapter 4)

Due: Wed March 8, 2006

Problem numbers refer to the text, 3rd edition.

NOTE: Be sure to give a full comparison for your answer (“B is 2.3 times faster than A”) rather than just a number (“2.3”).

(10 pts) 4.1

(10 pts) 4.2

(15 pts) 4.3.

(15 pts) 4.7

(15 pts) 4.9. Note that P1 and P2 have different clock rates, given in question 4.8.

(15 pts) 4.13. This question is asking, “In what different ways can I compute execution time?” For instance, one correct answer is {CPI, IC, cycle time}, since using our basic equation this is enough to calculate execution time. Your job is to find other sets of variables that, if I add just those variables, I could calculate execution time.

Hint: there are 6 correct answers, including the one given above.

(10 pts) 4.22 (this is on the CD – see back of this page for a copy). Note that you are asked for a speedup, not an execution time.