

University of Massachusetts Lowell

91.301: Organization of Programming Languages
Spring 2004

Problem Set 2 Higher Order Procedures

Issued: Tuesday, 10 February 2004

Due: Tuesday, 17 February 2004

Reading: Text (SICP 2nd Edition by Abelson & Sussman): Sections 1.2 and 1.3

Overview

This problem set deals with higher order procedures. We will also look into recursion and iteration as means to describe processes and write code to create them.

What to turn in

Keep one answer buffer for your problem set. Put the code for each problem sequentially in this buffer. Put the problem number in a comment before the code for that problem (use a semi-colon to make a line a comment).

Underneath the code for each problem, cut and paste the appropriate sample runs. You can put semi-colons before each line of the sample runs, which will comment them out and allow you to load the entire buffer in another session.

Print the answers buffer and turn it in during the class on the due date. Submit the assignment electronically via mercury: `submit holly 91301-ps3 ps3-ans.scm`

Problems

Problem 1: Exercise 1.9 on p. 36.

Problem 2: Exercise 1.11 on p. 42.

Problem 3: Exercise 1.12 on p. 42.

Problem 4: Exercise 1.16 on p. 46.

Problem 5: Exercise 1.20 on p. 49.

Problem 6: Exercise 1.30 on p. 60.

Problem 7: Exercise 1.31 on p. 60–61.

Problem 8: Exercise 1.32 on p. 61.

Problem 9: Exercise 1.33 on p. 61.

Problem 10: Exercise 1.34 on p. 66.