CS 578 PL Semantics Homework 7 – due 4:40pm, Tuesday, May 28, 2022

You should do all problems, but only those marked with an asterisk (*) must be submitted. (You may submit the others for feedback if you wish.)

Solutions may be submitted on paper at start of class, or by email before class.

Preparing your submission using latex is strongly suggested, but if your handwriting is sufficiently legible, hand-written submissions are also acceptable.

Email solutions should be sent to `tolmach@pdx.edu`, with the subject line "CS578 HW7" and one `.pdf` file as a simple attachment. (If your solution is handwritten, you must scan or photograph it, and produce a `.pdf` for submission.)

All programs mentioned in the textbook can be downloaded via the course web page; the relevant code for this assignment is in the `fullequirec`, `fullisorec`, `recon`, and `fullrecon`. For the coding problems, make sure your solutions actually pass the relevant checkers, or compile and run as expected.

1. Do Pierce 20.1.1.

2. Do Pierce 20.1.5.

* 3. Do Pierce 20.2.1, specifically for `Hungry` (p. 270), $\texttt{fix}_T$ (p. 273) and `D` (pp. 273-274).

4. Do Pierce 22.2.3.

5. Do Pierce 22.4.3.

* 6. Do Pierce 22.4.6. You may wish to implement the algorithm I gave in lecture rather than the one in Figure 22-2.