Types and Programming Languages, Exercise 4

Philip Wadler

Issued: Monday 11 February 2008. Due: Monday 18 February 2008.

TAPL refers to *Types and Programming Languages* by Benjamin Pierce.

1. Update your answer to Exercise 1.2 (TAPL, Exercise 3.5.17, 'Show that the small-step and big-step semantics for this language coincide') to simply-typed lambda calculus. You need only consider three cases, variables, lambda abstraction, and application; do not worry about booleans, conditionals, successor, or zero.

   $$t ::= x \mid \lambda x.t \mid t_1\, t_2$$

   See also TAPL, Exercise 5.3.8.