Assignment 1

Course: CMPT 340 – Programming Language Paradigms
Name: Connor Morrison
NSID: tvi340
Student Number: 11374770
Date: January 27, 2025

Exercise 3.13 in 'Programming Language Pragmatics, Fourth Edition':

a) What does this program print?
Output: 2
Explanation: In lexical scoping the body of D sees x=2 because that was the binding in effect where D was defined.

b) What would it print if Scheme used dynamic scoping and shallow binding?
Output: 4
Explanation: Under dynamic scoping with shallow binding, a reference to x uses the most recent binding at the time of the call, which is x=4.

c) What would it print if Scheme used dynamic scoping and deep binding?
Output: 3
Explanation: Here the binding environment of D is kept when D is passed to C, at which point x=3, so D sees x=3.