**CS61A Quiz 3 – Spring 2008**

Complete the following questions to the best of your abilities; you may use any reference materials besides a Scheme interpreter or other students (unless otherwise stated). If you can’t think of anything, just write “no idea.” You have 10 minutes; this quiz is not (and will never be) graded.

**Exercise 1:** Scheme is:

\_\_\_ applicative order

\_\_\_ normal order

**Exercise 2:** Use higher order functions to write a procedure that takes in a sentence of numbers and returns the square of the even elements in a sentence.

**Exercise 3:** Write an iterative version of (every fn sent).

**Exercise 4:** What does it mean that a procedure is Θ(n2)? Check all that apply:

\_\_\_ Procedure will run exactly 4 times as slow for input twice as large

\_\_\_ Procedure will always run slower than another procedure that is Θ(n)

\_\_\_ Procedure will always run slower than another procedure that is Θ(n) if the input is sufficiently large

\_\_\_ Procedure will run 4 times as slow as another procedure that is Θ(n) if the input is sufficiently large

**Exercise 5:** Describe the normal order of evaluation and how it is different from applicative order. Be as specific as possible and please do not refer to the book or the reader.

**Exercise 6:** What is one question you have about the material covered thus far? Or alternatively, tell me what is one concept or problem you find particularly difficult. Please be as specific as possible; the more detail you give, the more we can help you. If you’d like me to personally address any concerns with the material, you can write your name here and I will make a note to ask you about it.