Brevin Lacy (CM: 1082)

Assignment 19 Written Part (Exam Prep) ANSWERS

1. Write a procedure “sum-of-squares” that uses the list-recur procedure as shown to the left. “sum-of-squares” should return the summation of all the elements in the list squared. Failure to properly use the list-recur procedure will receive no credit.

(define list-recur

(lambda (base-value list-proc)

(letrec

([helper

(lambda (ls)

(if (null? ls)

base-value

(list-proc (car ls)

(helper (cdr ls)))))])

helper)))

(define sum-of squares

(list-recur 0 (lambda (a b)

(+ (\* a a) b))))

1. What would the following code produce?

(map (call/cc (lambda (x)

(lambda (y)

(if (< y 15)

(x (lambda (z) #f))

(\* y y)))))

'(7 11 3 0))

(#f #f #f #f)