Quiz 2b

1. (1 point each) Write down what each expression returns. If it errors, write ‘error’. If it returns a procedure, write ‘proc’



>(define (proc x y)

(let ((y ‘foo))

(word y x)))

>(proc ‘bar ‘lo)

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1. (2 points) Define mystery so that the following line outputs 9.

> ((mystery 3) 3)

1. (3 points) Write the function my-keep that takes in a predicate and a list **or**  a word and outputs a sentence whose elements are elements from the input that evaluates the predicate to true.

>(my-keep even? ‘(1 2 3 4))

(2 4)

>(my-keep vowel? ‘foobar)

(o o a)

1. (3 points) Write a function do-n-times that takes in a function and a positive number, which returns a procedure that performs the function n times

> ((do-n-times bf 3) ‘hello)

lo

> ((do-n-times (lambda (x) (\* x 2)) 3) 1)

8

>((do-n-times (lambda (wd) (word wd ‘s)) 4) ‘hi)

hissss