280 Quiz 2/15/07, 10 pts.

Name _____ Section ____

1. Here is the code for one version of a procedure to compute factorial. In the space provided after it, write a tail-recursive version of the same procedure.

```
(define fact
  (lambda (n)
    (if (= n 1)
        1
        (* n (fact (- n 1))))))
```

2. Fill in the blanks below to complete the procedure we defined in class.

```
(define sqrt-iter
  (lambda (guess x)

      ____________________________________

      ____________________________________

      ____________________________________


(define improve
  (lambda (guess x)
    (average guess (/ x guess))))

(define average
  (lambda (x y)
    (/ (+ x y) 2)))

(define good-enough?
  (lambda (guess x)
    (< (abs (- (square guess) x)) 0.001)))

(define square (lambda (x) (* x x)))
```