Exercise 1.42. Let *f* and *g* be two one-argument functions. The *composition f* after *g* is defined to be the function $x \mapsto f(g(x))$. Define a procedure compose that implements composition. For example, if inc is a procedure that adds 1 to its argument.

Solution

```
(define (inc x)
   (+ x 1))

(define (square x)
   (* x x))

(define (compose f g)
   (lambda (x) (f (g x))))

((compose square inc) 6)
```

Which will then return expected result 49.