SICP: Exercise 1.34

August 29, 2024

Suppose we define the procedure

```
(define (f g) (g 2))
```

Then we have

```
(f square)
4

(f (lambda (z) (* z (+ z 1))))
6
```

What happens if we (perversely) ask the interpreter to evaluate the combination `(f f)`*? Explain.*

The argument g represents a function to which 2 will be given as a parameter. If we make this parameter f, that means `(f 2)` will be evaluated, which will then evaluate to `(2 2)`, which causes an error because 2 is not a procedure.

To verify this hypothesis:

```
> (f f)
application: not a procedure;
 expected a procedure that can be applied to arguments
  given: 2
```

Seems correct!