

Exercise 1.41. Define a procedure `double` that takes a procedure of one argument as argument and returns a procedure that applies the original procedure twice. For example, if `inc` is a procedure that adds 1 to its argument, then `(double inc)` should be a procedure that adds 2. What value is returned by

```
((double (double double)) inc) 5)
```

Solution

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

```
(define (double f)
  (lambda (x) (f (f x))))
```

```
((double (double double)) inc) 5)
```

Which returns 21.