CSE 341 — Scheme Delay and Macro Mini-Exercises

1. What does this code print?

```
(define x 10)
(define d (delay (+ x 1)))
(set! x 20)
(display (force d)) (newline)
(set! x 30)
(display (force d))
```

2. What about this code?

```
(define s '(clam octopus))
(define d (delay (cons 'squid s)))
(set-car! s 'frog)
(display (force d)) (newline)
(set-car! s 'toad)
(display (force d))
```

3. Write a Scheme macro `my-and` that defines a two-argument version of `and`. Hints: look at the `my-or` example in the lecture notes. The Scheme semantics for `and` is that if all of the arguments are not `#f`, `and` returns the value of its last argument.

4. Write a Scheme macro `my-and` that defines the full n-argument version of `and`.