

61A-125 Spring 2016
Discussion Quiz 08

1. A Scheme Primer

Please answer the following questions about Scheme.

- (a) What is Scheme?
- (b) Do you enjoy counting parentheses? Circle one: Yes
- (c) In Scheme, how would I define the value of `a` to be 5?
- (d) Define a Scheme procedure, `remainder`, that takes in two integers `m` and `n` and returns the remainder of `m` divided by `n`. Assume that both `m` and `n` are positive.

2. WWSP?

```
(+ (and 0 (or #f 1)) 2)
```

```
(cons 5 6)
```

```
(define x (+))
```

```
(define y +)
```

```
(x 3 4)
```

```
(y 3 4)
```

```
(define (mystery lst)
  (cond ((null? lst) nil)
        ((= (modulo (car lst) 2) 1) (cons (car lst) (mystery (cdr lst))))
        (else (mystery (cdr lst)))))
(mystery (list 1 2 3 4))
```
