

CvP Practice Class 6

Chapter 15: Problem Set

6. What does the following Scheme function do?

```
(define (y s lis)
  (cond
    ((null? lis) '() )
    ((equal? s (car lis)) lis)
    (else (y s (cdr lis)))
  )
)
```

7. What does the following Scheme function do?

```
(define (x lis)
  (cond
    ((null? lis) 0)
    ((not (list? (car lis)))
     (cond
       ((eq? (car lis) nil) (x (cdr lis)))
       (else (+ 1 (x (cdr lis))))))
    (else (+ (x (car lis)) (x (cdr lis))))
  )
)
```

Chapter 15: Programming Exercises

4. Write a Scheme function that returns the number of zeros in a given simple list of numbers.
5. Write a Scheme function that deletes all top-level instances of a given atom from a given list.
6. Write a Scheme function that removes the last element from a given list.