

17.1

```
> (car '(Rod Chris Colin Hugh Paul)) Rod

> (cadr '(Rod Chris Colin Hugh Paul)) Chris

> (cdr '(Rod Chris Colin Hugh Paul)) (Chris Colin Hugh Paul)

> (car 'Rod) error

> (cons '(Rod Argent) '(Chris White)) ((Rod Argent) Chris White)

> (append '(Rod Argent) '(Chris White)) (rod argent chris white)

> (list '(Rod Argent) '(Chris White)) ((rod argent) (chris white))

> (caadr '((Rod Argent) (Chris White)
          (Colin Blunstone) (Hugh Grundy) (Paul Atkinson)))
'Chris

> (assoc 'Colin '((Rod Argent) (Chris White)
                  (Colin Blunstone) (Hugh Grundy) (Paul Atkinson)))
'(Colin Blunstone)

> (assoc 'Argent '((Rod Argent) (Chris White)
                   (Colin Blunstone) (Hugh Grundy) (Paul Atkinson)))
#f

> (assoc 'Chris '(Chris Colin Hugh Paul))
Error
```

17.2

```
;;; Part 1
(define (f1 se1 se2)
  (list (list (cadr se1) (caddr se1) (car se2))))

;;; Part 2
(define (f2 se1 se2)
  (list (cdr se1) (cadr se2)))
```

```

;;; Part 3
(define (f3 se1 se2)
  (append se1 se1))

;;; Part 4
(define (f4 se1 se2)
  (list (list (car se1) (car se2)) (append (cdr se1) (cdr se2)))))

```

17.8

```

(define (membr x lst)
  (if (null? lst)
      #f
      (if (equal? x (car lst)) #t (membr x (cdr lst)))))

```

17.9

```

(define (list-ref lst num)
  (cond ((null? lst) #f)
        ((equal? num 0) (car lst))
        (else (list-ref (cdr lst) (- num 1)))))

```

17.10

```

(define (length lst)
  (if (null? lst)
      0
      (+ 1 (length (cdr lst)))))

```

17.11

```

(define (before-in-list? lst wd1 wd2)
  (cond ((null? lst) #f)
        ((equal? (car lst) wd1) (member? wd2 lst))
        (else (before-in-list? (cdr lst) wd1 wd2))))

```

17.12

```
(define (flatten lst)
  (if (null? lst)
      '()
      (if (word? lst)
          lst
          (reduce se (map (lambda (x) (flatten x)) lst))))))
```

17.14

```
(define (branch numlst lst)
  (cond ((null? numlst) lst)
        ((> (car numlst) (length lst)) #f)
        (else (branch (cdr numlst) (branch-helper (car numlst)
lst)))))
```

```
(define (branch-helper num lst)
  (if (equal? num 1)
      (car lst)
      (branch-helper (- num 1) (cdr lst))))
```