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**Instructions.** Answer the following questions on the space provided for each item. Take note of proper format and syntax. Each item is worth two (2) points unless specified. You may use the back of your paper for scratchwork.

1. Convert the following to Scheme expressions (follow the PEMDAS rule and left associativity).

(a)  $14 - (4 + 13) * 2 - (4 / 2)$

```
(- (- 14 (* (+ 4 13) 2)) (/ 4 2))
```

(b)  $15 + 2 * 86 / 2 - 4 + 7 / 3$

```
(+ (- (+ 15 (/ (* 2 86) 2)) 4) (/ 7 3))
```

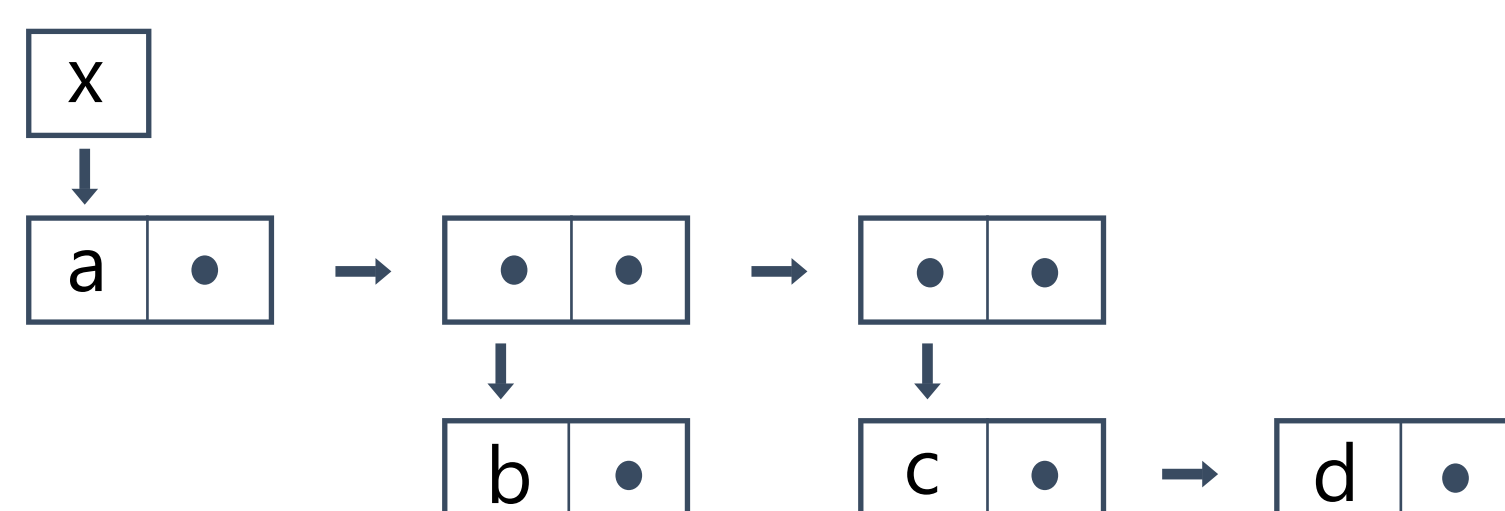
2. Answer the questions for each given definition. Write your answers on the cell provided for each number. (10pts)

(a) `(define z (list 'a (list 'b) (list 'c 'd)))`

- i. (1 point) What would be the resulting list after evaluating `z`?

```
(a (b) (c d))
```

- ii. (2 points) Draw the linked list representation of `z`.



- iii. (1 point) Give the command to display `c`.

```
(caaddr z)
```

(b) `(define z (list 'a (list 'b (list 'd 'c 'e) 'f (cons 'g 'h) ) )`

- i. (1 point) What would be the resulting list after evaluating `z`?

```
(a (b (d c e) f (g • h)))
```