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# **Questions 5-7**

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### Question 5

1/1 point (graded)

We are close to completing our function:

```
;; (listof String) -> (listof String) ;; append each string's position in the list to the front of the string to number the list
(check-expect (number-list empty) empty)
(check-expect (number-list (list "first" "second" "third"))

(list "1: first" "2: second" "3: third"))
;(define (number-list los) los) ;stub
(define (number-list lon0)
  ;; acc: Natural; 1-based position of (first lon) in lon
;; (number-list (list "first" "second" "third") 1)
;; (number-list (list "second" "third") 2)
; (number-list (list "second" "third") 2)
   ;; (number-list (list
                                                              "third") 3)
   (local [(define (number-list lon acc)
                  (cond [(empty? lon)(... acc)]
                           [else
                             (... acc
                                     (first lon)
                                     (number-list (rest lon)
                                                        (... acc)))]))]
     (number-list lon0 ...)))
```

What should go in the base case, after (empty? lon)?

O "0:"

**c** empty

0 0

C false



#### **Explanation**

As shown in the <code>check-expect</code> above, the empty list will just produce empty

Θ Show

1 Answers are displayed within the problem

## Question 6

1/1 point (graded)

How should we initialize the accumulator in the trampoline call?

C (number-list lon0 0)

C (number-list lon0 "0: ")

C (number-list lon0 "1: ")



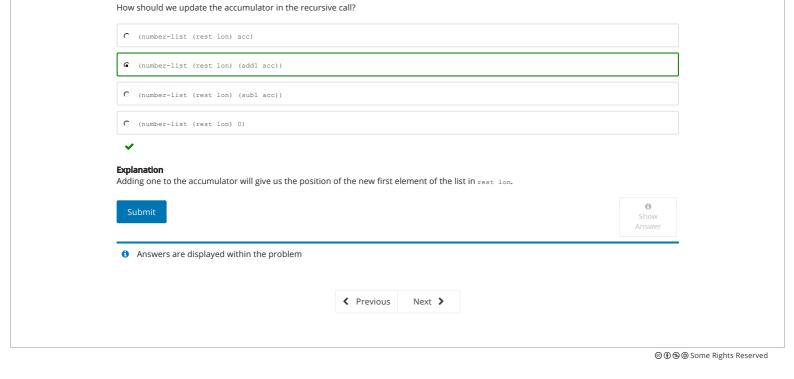
# Explanation

The initial value of acc must be a natural number, and it should start at 1 because, we are using 1-based indexing to number the list.

Answer

Answers are displayed within the problem

## Question 7





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