



# CSC-151 Spring 2026

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Monday April 6

# Today's Agenda

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1. Announcements
2. Reading Review
3. Lab
4. Wrap-up



# Announcements

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## Coding Challenges

Coding Challenge 7 was due yesterday  
*get it in if you haven't already!*

Coding Challenge 8 out today  
*last coding challenge!*

## Quiz Wednesday

New topics: Dictionaries & Vectors  
Survey in Gradescope to pick 1 redo



Mentor Session tomorrow!

## Computer Science Events

CS Table : Age Verification

CS Poster sessions

- Wednesday April 8 and Thursday April 9
- 4:15 – 5:45pm
- HSSC A1231

# Vector Review



01

What is the difference between a vector and a list in Scheme?

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02

Consider the following “operations”

- Changing the length by adding values
- Changing the length by removing values
- Updating a value in a specific location
- Looking to find if a particular value exists

Which of these operations would be faster on a list? On a vector?

# Vector Review

03

Which of the following code snippets will correctly change a vector from [0 1 2] to ["a" "b" "c"] ?

```
(vector-set! v 0 "a")  
(vector-set! v 1 "b")  
(vector-set! v 2 "c")
```

```
(vector-set!  
  (vector-set!  
    (vector-set! v 0 "a")  
    1 "b")  
  2 "c")
```

```
(define change-values  
  (lambda (vec)  
    (vector-set! vec 0 "a")  
    (vector-set! vec 1 "b")  
    (vector-set! vec 2 "c")))  
(change-values v)
```

```
(define change-values  
  (lambda (vec)  
    (let*  
      ([temp0 (vector-set! vec 0 "a")]  
       [temp1 (vector-set! vec 1 "b")]  
       [temp2 (vector-set! vec 2 "c")])  
      void)))  
(change-values v)
```

```
(define change-values  
  (lambda (vec)  
    (begin  
      (vector-set! vec 0 "a")  
      (vector-set! vec 1 "b")  
      (vector-set! vec 2 "c"))))  
(change-values v)
```

# Reading Review

04

What property of vectors breaks our mental model of tracing the execution of Scheme programs?

# Lab Notes

- Today you will do tracing, and there are A LOT of steps. One problem has 30+ steps.
- Then, vector recursion



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# Upcoming & Reminders

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- Work on Coding Challenge 8
- Prepare for our quiz on Wednesday

