

The background features three vertical stripes on the left side: a wide light red stripe, a narrower teal stripe, and a narrow light beige stripe. The right side of the background is white with a grid of small, light red dots that fades out towards the center.

CSC-151

Monday October 27

Fall 2025



AGENDA

1. Announcements

2. Reading Review

3. Lab

4. Wrap-up



ANNOUNCEMENTS

CS Department Events

- **Welcome back!**
- **No quiz on Wednesday**
- **Now might be a good time to work on coding challenge revisions**

CS Table

- **Tuesday at noon, Marketplace upstairs**
- **Topic: ??**

Study abroad in CS for majors

- **Wednesday 4pm, Noyce 3821**
- **Learn about AIT program, eat pizza, win a Rubik's cube**

CS Poster Session

- **Thursday 4:15pm, HSSC A1231**

READING REVIEW

```
(define fun1
  (lambda (lst)
    (match lst
      [null {??}]
      [(cons head tail)
       (some-proc {??} (fun1 {??}))])))
```

```
(define fun2
  (lambda (n lst)
    (match lst
      [null null]
      [(cons head tail)
       (fun2 {??} (some-proc {??}))])))
```

1

Which of these two procedures is using **tail recursion**?

2

How do you know it's **tail recursion**?

3

What benefit is there to **tail recursion** over "regular" recursion?

READING REVIEW

4

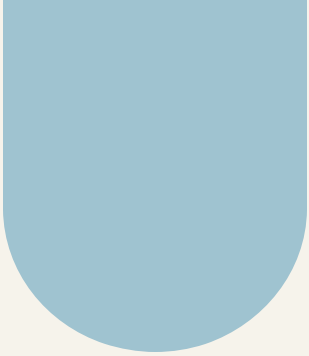
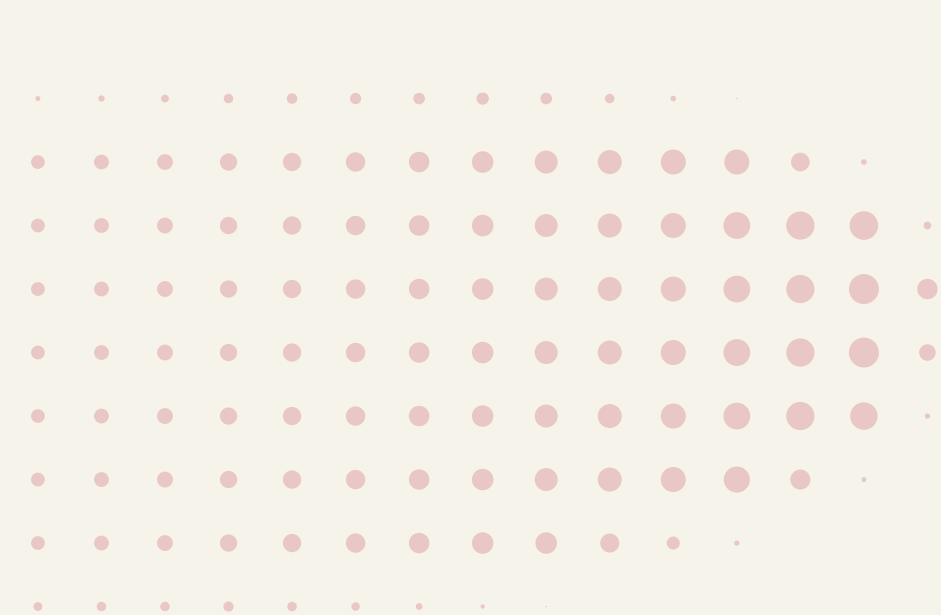
Re-write this procedure
using tail recursion

```
(define factorial  
  (lambda (n)  
    (match n  
      [0 1]  
      [_ (* n (factorial (- n 1)))])))
```



Questions?





Lab Time

