



CSC-151 Spring 2026

Friday February 6

Today's Agenda

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



Announcements

Coding Challenges

Coding Challenge 2 is due Sunday

- Any questions?

DON'T FORGET:

- Review citation policies & add acknowledgements
- Make sure your code runs in scamper
- Go through the checklist at the bottom of the assignment page
- You must turn it in in order to resubmit it in the future

Quizzes

Quiz 1 is graded

- Specific notes ...

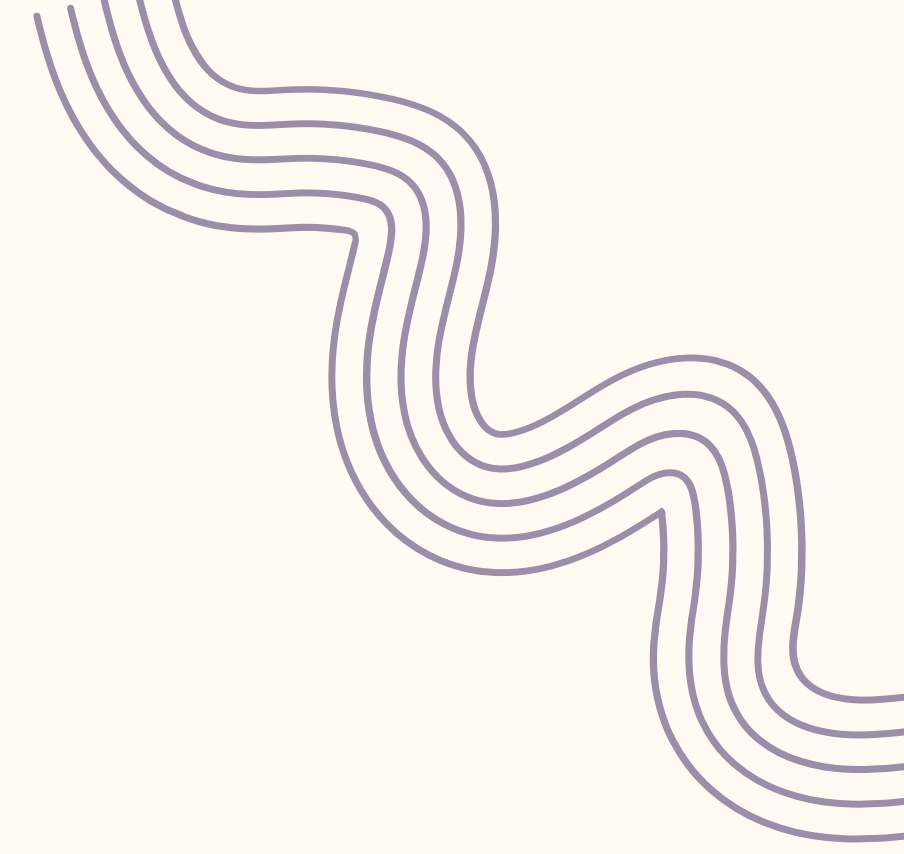
Quiz 2 next week

- Conditionals
- Procedural abstraction
- New problems for both primitive types and tracing



Mentor Session on Sunday

Reading Review



01

In what context(s) do you use section or compose? Can you come up with a procedure that uses both?

02

Recall the algorithm for making a peanut butter and jelly sandwich. Describe a bottom-up approach and a top-down approach to writing the algorithm.

map, filter, reduce, apply

	Input	Output	Examples
map	procedure, list	list	> (map sqr (list 1 2 3)) (1 4 9) > (map * (list 1 2 3) (list 2 2 2)) (2 4 6)
filter	list, predicate	list	> (filter odd? (list 1 2 3)) (list 1 3)
reduce	procedure, list	output type of the procedure	> (apply + (list 1 2 3)) 6
apply	procedure, list	output type of the procedure	> (reduce string-append (list "a" "b" "c")) "abc"

reduce vs. apply

	Input	Output
reduce	procedure, list	output type of the procedure
apply	procedure, list	output type of the procedure

Examples

```
> (apply + (list 1 2 3))
```

```
6
```

```
> (reduce + (list 1 2 3))
```

```
6
```

```
> (apply string-append (list "a" "b" "c"))
```

```
"abc"
```

```
> (reduce string-append (list "a" "b" "c"))
```

```
"abc"
```

```
> (apply (section + _ 3) (list 1 2 3))
```

```
4
```

```
> (reduce (section + _ 3) (list 1 2 3))
```

```
9
```

Lab



Upcoming & Reminders

- Coding Challenge 2 due on Sunday
- Mentor Session on Sunday

