Chapter 3 Discussion

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Binding times

- Work in small groups
- Don't look at the text or your notes
- List as many binding times as you can recall
  - For each time list what is usually bound at that time.

Allocation methods

- Work in small groups
- Don't look at the text or your notes
- List as many allocation methods as you can recall
  - For each method list a language and a feature from that language that uses that allocation method.

Scoping rules

- Work in small groups
- Don't look at the text or your notes
- Write a definition of the word "scope"

Scope

- Consider the E3 program

```
(global x 99)
(fun f (y) (+ y x))
(global x 12)
(global y (@ f 5))
(fun f (z) (* z 13))
(global z (@ f 5))
(global temp (pair 4 5))
```

What value is "z" if functions are statically scoped

Scope

- Consider the E3 program

```
(global x 99)
(fun f (y) (+ y x))
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What value is "z" if functions are dynamically scoped

Scope

- Consider the E3 program

```
(global x 99)
(fun f (y) (+ y x))
(global x 12)
(global y (@ f 5))
(fun f (z) (* z 13))
(global z (@ f 5))
(global temp (pair 4 5))
```

What value is "y" if globals are statically scoped

Scope

- Consider the E3 program

```
(global x 99)
(fun f (y) (+ y x))
(global x 12)
(global y (@ f 5))
(fun f (z) (* z 13))
(global z (@ f 5))
(global temp (pair 4 5))
```

What value is "y" if globals are dynamically scoped

Nested scopes

- Work in small groups
- Don't look at the text or your notes
- Suggest a method to implement nested static scoping

Recursive bindings

- Work in small groups
- Don't look at the text or your notes

- Why are recursive bindings problematic?

- Suggest two methods to solve the problem that you have read about.

Overloading

- Work in small groups
- Don't look at the text or your notes

- What is overloading?
- How is it resolved?