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
Consider the E3 program:

```scheme
(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 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?