



Context-aware functions



Who cares about context?

- Say we want to "integrate" a sequence:
 - Given: [1,1,0,2,1]
 - Return: [1,2,2,4,5]
- How can we implement this?
- How fast is our program?
- Can we do any better?



Recipe for accumulators

- It's an "add-on"
 - First develop function as usual
 - Then, study it to see how it can be improved
 - How can an accumulator help?
 - Introduce a local function declaration
 - Study accumulator invariant
- Examples, anyone?



Examples

- Some simple ones
 - Reverse a list
 - Add elements of list
 - Measure height of a tree
- What's the invariant?
 - Don't miss today's lab!