CS3L: Introduction to Symbolic Programming
Lecture 13: Bugs and Two Stage Recursion
Summer 2008 Colleen Lewis
colleenL@berkeley.edu

Today
- Lab
- Tail Recursion
- Two-stage recursion
- Bugs in recursion
- Homework
  - Thurs: Bowling (Hwk11) due Monday
  - Fri: Compress (Hwk12) occurs-in? (Hwk13) due Tuesday
  - Mon: Mini-project 2 due Thursday

Non-Tail Recursion
- Scratch Demo
  http://scratch.mit.edu/projects/ColleenBerkeley/213678

Tail Recursion
- “Technically” the monkey doesn’t have to stick around.
- Computers are smart and try to make things faster
- You don’t have to worry about this in CS3 but it is an important thing in CS (like at my job at Leapfrog)
Is there a bug?

(define (no-pairs? sent)
  (cond
    ((empty? sent) #t)
    ((equal? (first sent)
              (first (bf sent))) #f)
    (else (no-pairs? (bf sent))))

(no-pairs? '(a))

Number Spelling

- How do you spell 40? - FORTY
- No “and”s necessary! (or wanted)