Today

- I'm sick.
- I'm going home after lecture, but I'll be online
- Homework
  - Thurs: Bowling (Hwk11) due Monday
  - Fri: Compress/occurs-in? (Hwk12) due Tuesday
  - Mon: Mini-project 2 due Wednesday
- Testing the Bowling Program
- Accumulating Recursion
- Compressed
- Occurs-in?

Testing Bowling

- Don’t start programming before you can calculate a bowling score by hand
- Test with simple cases
  - '(10 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0)
  - The last frame is complicated!

Accumulating Recursion

(define (gather-evens sent)
  (cond
   ((empty? sent) '())
   ((even? (first sent))
    (se (first sent) (gather-evens (bf sent))))
   (else
    (gather-evens (bf sent)))))

> (gather-evens '(2 3 4 5 6))
(se 2 (se 4 (se 6 '())))
⇒ (2 4 6)
Final Version of gather-evens w/ Accumulating Recursion

(define (gather-evens evens-so-far sent)
  (cond
    ((empty? sent) evens-so-far)
    ((even? (first sent))
     (gather-evens (se evens-so-far (first sent)) (bf sent)))
    (else
     (gather-evens evens-so-far (bf sent)))))

Homework - Compressed

- (0 0 0 1 0 0 0 1 1 1 1 1 1 1 1 1)
- (4 0 1 4 0 9 1)
- (0 1 0 1)
- (0 1 0 1)

Homework - Occurs-in?

- (occurs-in? 'abc 'abcde) #t
- (occurs-in? 'abc 'xyabc) #t
- (occurs-in? 'ab 'axbc) #f
- (occurs-in? 'abc 'xy) #f
- This is not an exhaustive list!!!