Today
- Upcoming Homework
  - Thurs: Bowling (Hwk11) due Monday
  - Fri: Compress/occurs-in? (Hwk12) due Tuesday
  - Mon: Mini-project 2 due Wednesday
- Lunch yesterday was fun ~10 people came
- Accumulating Recursion
- Recursion Patterns

Not Accumulating Recursion
(define (sent-sum sent)
  (if (empty? sent)
      0
      (+ (first sent) (sent-sum (bf sent)))))

Accumulating Recursion
(define (sent-sum sent sum-so-far)
  (if (empty? sent)
      sum-so-far
      (sent-sum (bf sent) (+ sum-so-far (first sent)))))

Recursion Patterns
- Split into groups of 4
  - I'll pass out a set of worksheets for each group
  - Work on the work sheet as a team
  - Join another group and explain your worksheet to them

Application-To-All
(define (proc-applied-to-all sent)
  (if (empty? sent)
      '()
      (se (proc (first sent))
          (proc-applied-to-all (bf sent))))
Examples of Application to All
- Square-all
- Add-1-to-all
- Add-2-to-all
- Grocery-to-cost (food->cost)
- Calorie-counter (food -> calories)
- French-to-english
- English-to-piglatin

Filtering
(define (filtered sent)
  (cond
    ((empty? sent) '())
    ((interesting? (first sent))
      (sent (first sent) (filtered (bf sent))))
    (else (filtered (bf sent))))

Examples of Filtering
- Keep-Multiples-of-5
- Keep-Evens
- Keep-vowels
- Keep-words-with-even-num-letters
- Keep-Michael
- Gather-with-hair-color