Clicker Questions
September 17
Suppose L is a list of pairs, each with a name and a number, such as
( (A 23) (B 14) (C 32) (D 25) ). Which of the following will sum the
numbers in L?

A. (map + (apply cdr L))
B. (+ cadr L)
C. (+ (map cadr L))
D. (apply + (map cadr L))
Answer D: (apply + (map cadr L))
Here is a harder one. I want to write (flatten L) which produces a list with all of the elements of L. So (flatten '(1 (2 ((3 4) 5))) is (1 2 3 4 5).

A. (define flatten (lambda (L) (apply append L)))
B. (define flatten (lambda (L) (apply append (map flatten L))))
C. (define flatten (lambda (L)
   (cond
    [(atom? L) (list L)]
    [else (apply append (map flatten L))])))
D. (define flatten (lambda (L)
   (cond
    [(atom? L) L]
    [else (apply cons (map flatten L))])))
A. Answer C: (define flatten (lambda (L)
   (cond
      [(atom? L) (list L)]
      [else (apply append (map flatten L))])))