Clicker Questions
September 6
What is (A '(1 2 3) '(A B C)) ??
(define A
  (lambda (lat1 lat2)
    (cond
      [(null? lat1) lat2]
      [else (cons (car lat1) (A (cdr lat1) lat2))])))

A) It gives an error
B) (1  2  3  A  B  C)
C) (3  2  1  A  B  C)
D) (A  B  C)
Answer: B) (1 2 3 A B C)

Procedure A is called "append". It pushes 2 lists together:
(append '(1 2 3) '(4 5 6)) is (1 2 3 4 5 6)
What is (foo '(1 2 3))?  

(define foo
  (lambda (lat)
    (cond
     [(null? (cdr lat)) (car lat)]
     [else (cons (car lat) (foo (cdr lat))))])))

a) This produces an error
b) (1 2 3)
c) (1.2.3)
d) (1 2.3)
Answer: d) (1 2.3)

(foo '(3)) => 3
(foo '(2 3)) => (2.3)
(foo '(1 2 3)) => (1 2.3)
(define f
  (lambda (x)
    (lambda (y) (+ x y)))))

What is (f 3 4)?

A) An error
B) 3
C) 4
d) 7
A) An error

f is a function of 1 variable; (f 3 4) doesn't make sense
(define f
  (lambda (x)
    (lambda (y) (+ x y))))

Somehow f is adding x and y. How do we call it with arguments 3 and 4 to get answer 7?

A) (f 3 4)
B) ((f 3 4))
C) (f '(3 4))
D) ((f 3) 4)
Answer: D) ((f 3) 4)

(f 3) returns a procedure; when you call that procedure with a value, it adds 3 to that value and returns the result.