

Monday, January 7

# Clicker Questions

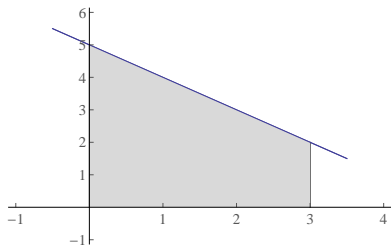
# Clicker Question 1

## Computing a definite integral geometrically

Draw the graph of  $y = 5 - x$  between  $x = 0$  and  $x = 3$ , and then use it to compute

$$\int_0^3 (5 - x) dx.$$

- A.  $21/2$
- B.  $9/2$
- C. 21
- D. 15
- E. 6



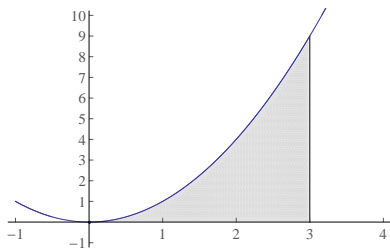
## Clicker Question 2

### Estimating a definite integral geometrically

Using the graph of  $y = x^2$  between  $x = 0$  and  $x = 3$ , estimate

$$\int_0^3 x^2 dx.$$

- A. about 7
- B. about 9
- C. about 11
- D. about 13
- E. about 15



## Clicker Question 3

### Using properties of integrals

Using our previous evaluations, calculate  $\int_0^3 [2(5 - x) - x^2] dx$ .

- A. 5
- B. 10
- C. 15
- D. 20
- E. **none of the above**: the answer is  $2 \cdot \frac{21}{2} - 9 = 12$

## Clicker Question 4

### A negative integrand

What do you think the definition gives us for the definite integral

$$\int_0^3 (x - 5) dx = \lim_{n \rightarrow \infty} \sum_{i=1}^n (x_i^* - 5) \Delta x?$$

- A. not defined
- B.  $21/2$
- C. 0
- D.  $-21/2$

