

September 4
 SWBAT:
 Predict if a Riemann sum
 will give you an over- or
 under-estimate.

- 1) Write an equation of the line with slope = 2 and goes through the point (1, 5).

$$y - y_1 = m(x - x_1)$$

$$y - 5 = 2(x - 1)$$

- 2) Solve: $2x^2 - 18 = 0$

$$2x^2 - 18 = 0$$

$$+18 +18$$

$$2x^2 = 18$$

$$\frac{2x^2}{2} = \frac{18}{2}$$

$$x^2 = 9$$

$$\sqrt{x^2} = \sqrt{9}$$

$$x = 3 \text{ AND } x = -3$$

- 3) Solve: $x^3 + 2 = 10$

$$x^3 + 2 = 10$$

$$-2 \quad -2$$

$$x^3 = 8$$

$$\sqrt[3]{x^3} = \sqrt[3]{8}$$

$$x = 2$$

- 5) Solve: $\frac{3x-7}{x} = 2$

$$\frac{3x-7}{x} = 2$$

$$3x-7 = 2x$$

$$-7 = -x$$

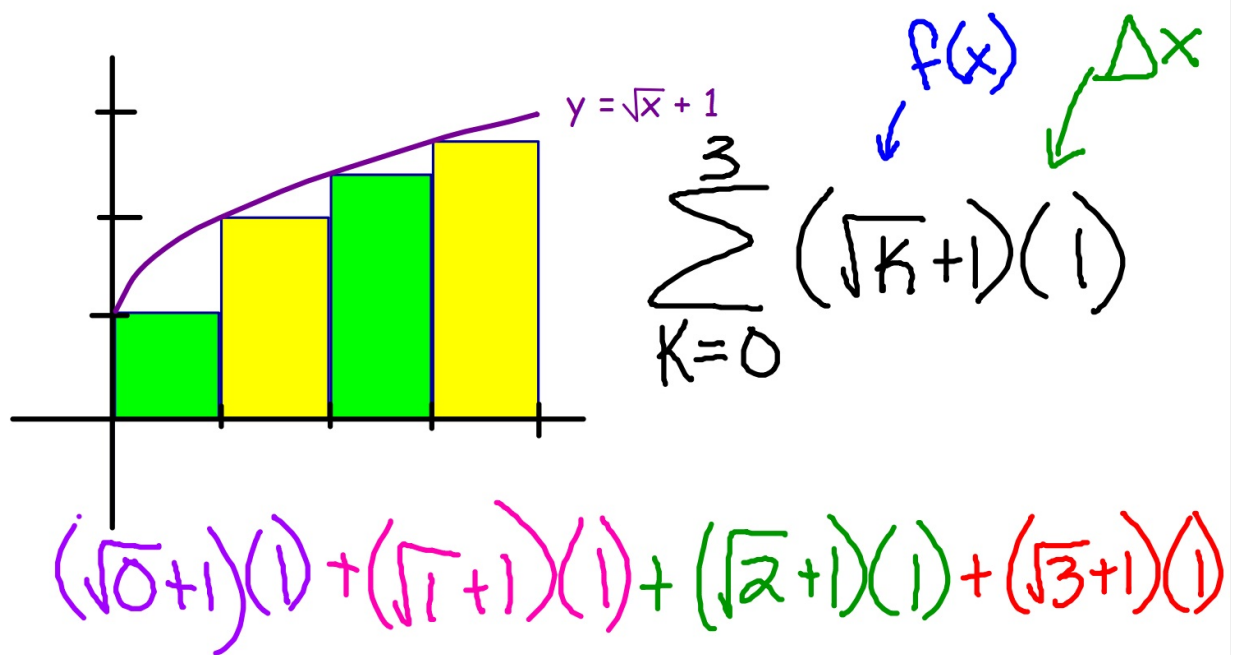
$$7 = x$$

- 4) Factor: $2x^2 - 24x + 0$

$$2x^2 - 24x = 2x(x-12)$$

$$(2x+0)(x-12)$$

Can you cancel the 3x and x?



Riemann
Sum

$$\text{Area} \approx \sum_{k=1}^n f(x_k) \Delta x_k$$

↑
width of
the rectangles
is determined by k