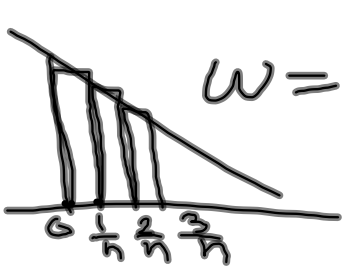


$$y = -2x + 3 \quad [0, 1]$$



$$\omega = \frac{1}{n} \quad x_i = \frac{i}{n}$$

$$\lim_{n \rightarrow \infty} \sum_{i=1}^n \frac{1}{n} \left(-2 \frac{i}{n} + 3 \right)$$

$$\lim_{n \rightarrow \infty} \sum_{i=1}^n -\frac{2i}{n^2} + \frac{3}{n}$$

$$\lim_{n \rightarrow \infty} \left(-\frac{2}{n^2} \frac{n^2 + n}{2} + \frac{3}{n} \right)$$

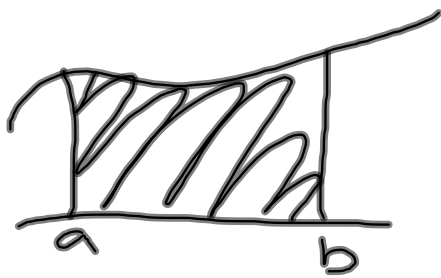
$$-\frac{2n^2}{2n^2} - \frac{2n}{2n^2} + 3$$

$$\lim_{n \rightarrow \infty} -1 - \frac{1}{n} + 3$$

$$-1 + 3 = \textcircled{2}$$

$$y = -2x + 3$$

Definite Integrals



$$\int_a^b f(x) = F(b) - F(a)$$

$$F(x) = \int f(x)$$

$$y = -2x + 3 \quad [0, 1]$$

$$\int_0^1 -2x + 3 \, dx$$

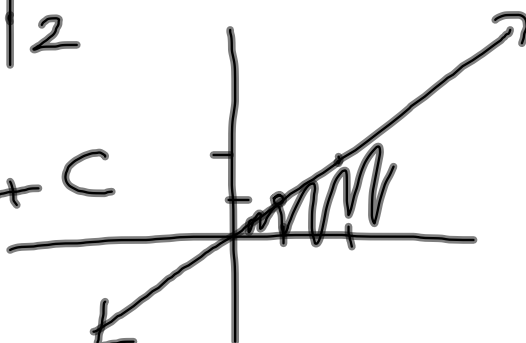
$$(-x^2 + 3x + C) \Big|_0^1$$

$$-1 + 3 + C - (C)$$

$$\textcircled{2}$$

$$y = x \quad \begin{array}{c|c} x & y \\ \hline 1 & 1 \\ 2 & 2 \end{array}$$

$$\int x dx = \frac{x^2}{2} + C$$



$$\int_3^7 x dx = \left. \frac{x^2}{2} \right|_3^7 = \frac{49}{2} - \frac{9}{2} =$$