

Average Rate of Change of a Function

Average Rate of Change

Average Rate of Change of a Function

$$x \quad y = f(x) = 3x + 2 \quad \text{Average Rate of Change} = \frac{\Delta y}{\Delta x}$$

-2

-1

0

1

2

Average Rate of Change of a Function

$$x \quad y = f(x) = x^2 + x - 4 \quad \text{Average Rate of Change} = \frac{\Delta y}{\Delta x}$$

-2

-1

0

1

2

Average Rate of Change of a Function

If c is in the domain of a function, $f(x)$, the average rate of change of $f(x)$ from c to x is defined as...

$$\text{Average Rate of Change} = \frac{\Delta y}{\Delta x}$$

Average Rate of Change

$$\frac{f(x) - f(c)}{x - c}$$

From 2 to 8

$$f(x) = x^2 - 4x - 12$$

Average Rate of Change

$$\frac{f(x) - f(c)}{x - c}$$

From -2 to x

$$f(x) = x^2 - 4x - 12$$

Average Rate of Change of a Function

If c is in the domain of a function, $f(x)$, the average rate of change of $f(x)$ from c to x is defined as...

$$\text{Average Rate of Change} = \frac{\Delta y}{\Delta x} = \frac{f(x) - f(c)}{x - c} \quad x \neq c$$