Average Rate of Change/Slope of Secant Line

Name _____

Date _____ Period _____

Average Rate of Change of a Function

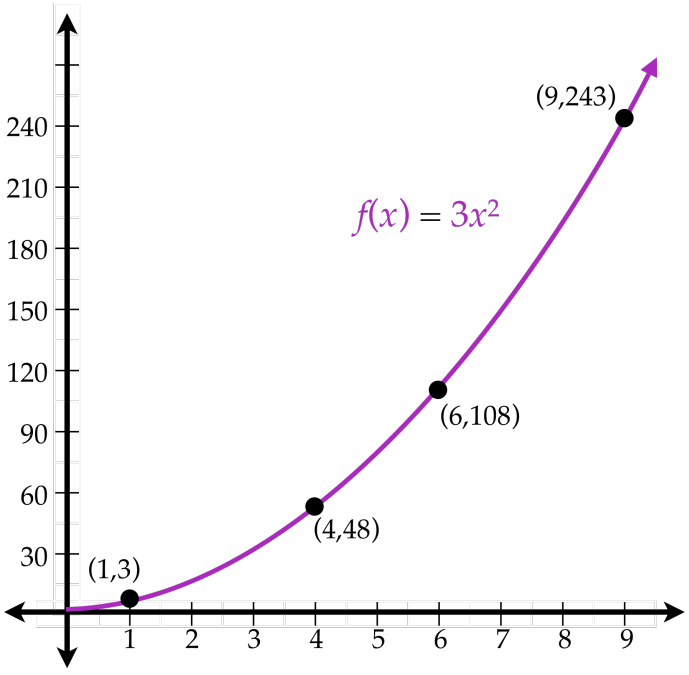
If c is in the domain of a function, $f(x)$, the average rate of change of $f(x)$ from c to x is defined as

Average Rate of Change

Average Rate of Change

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

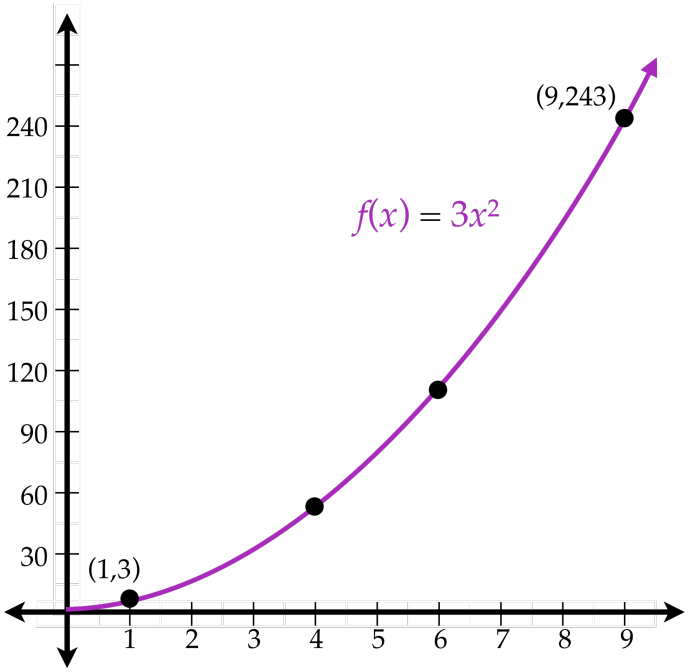
From 1 to 4



Average Rate of Change

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

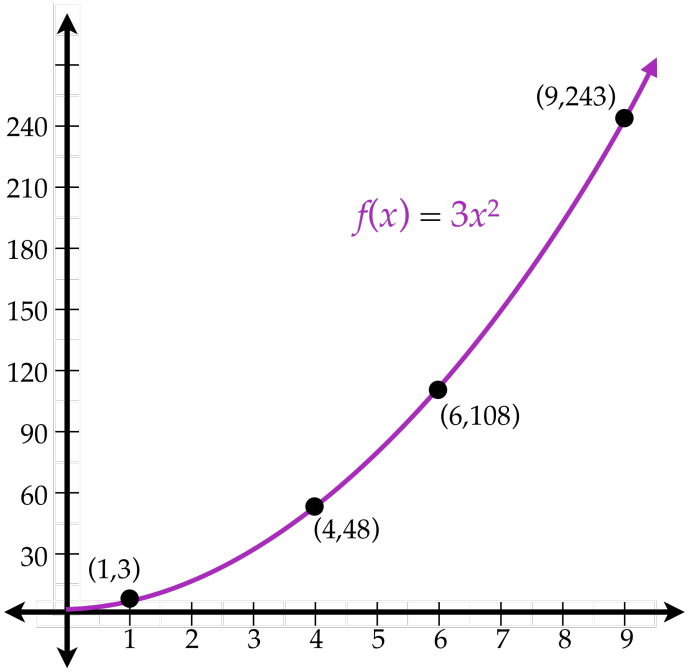
From 1 to 6



Average Rate of Change

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

From 1 to 9



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

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