

Derivada de funcione y

Nico Gareth Sánchez Pastrana

"Ejercicios"

$$g(x) = 2x + 1$$

$$\frac{d}{dx}(2x + 1) = \frac{d}{dx}(2x) + \frac{d}{dx}1 = 2 \frac{d}{dx}x + 0 = 2(1) = 2$$

$$I(x) = -x + 1$$

$$\frac{d}{dx}(-x + 1) = \frac{d}{dx}(-x) + \frac{d}{dx}1 = -1 + 0$$

$$f(x) = -x - 1$$

$$\frac{d}{dx}(-x - 1) = \frac{d}{dx}(-x) + \frac{d}{dx}1 = -1 + 0 = -1$$

$$f(x) = 2x^2 + x + 1$$

$$\frac{d}{dx}(2x^2 + x + 1) = \frac{d}{dx}(2x^2) + \frac{d}{dx}x + \frac{d}{dx}1 = 2(2)x + 1 + 0$$

$$\frac{d}{dx}(x^2 + 4x + 1) = 4x + 1 \quad \circ \quad f'(x) = 4x + 1$$

$$g(x) = x^3 + 5x^2 + 6x + 20$$

$$\left(\frac{d}{dx} (x^3 + 5x^2 + 6x + 20) = \frac{d}{dx} x + \frac{d}{dx} (5x^2) + \frac{d}{dx} 6x + \frac{d}{dx} 20 \right)$$
$$\rightarrow = 20$$

$$\left(\frac{d}{dx} x^3 + \frac{d}{dx} (5x^2) + \frac{d}{dx} 6x + \frac{d}{dx} 20 = 3x^2 + 10x + 6 \right) \quad (1)$$
$$+ 0 = \frac{d}{dx} (x^3 + 5x^2 + 6x + 20) = 3x^2 + 10x + 6 \quad (1) \quad 10 = 0$$

$$f(x) = x^2 + 4x + 1$$

$$\frac{d}{dx} (x^2 + 4x + 1) = \frac{d}{dx} (x^2) + 4 \frac{d}{dx} x + \frac{d}{dx} 1 = 2x + 4 \quad (1) \quad 10$$

$$\frac{d}{dx} (x^2 + 4 + 1) = 2x + 4$$