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Materia: Calculo

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Reservar los sig ejercicios

1. Clasifica las siguientes funciones:

$$y = 5x^2 + 6x + 2 \text{ Algebraica}$$

$$y = \sin 6x + 1 \text{ Transcendental}$$

$$y = 8x + 2 \text{ Algebraica}$$

$$y = e^{\cos x} \text{ Transcendental}$$

$$y = \log_2 b^4 \text{ Transcendental}$$

$$y = \frac{2x + 1}{3} \text{ Algebraica}$$

$$y = 2(x + 2) \text{ Algebraica}$$

Algebraica

2. Calcular el dominio y el rango:

$$f(x) = 1x + 9 \quad D(x) = -1.28 \quad R = (y) = 9$$

$$f(x) = 5x - 4 \quad D(x) = \infty \quad R = (y) = (0, -3)$$

$$f(x) = \frac{1}{x} + 1 \quad D(x) = \infty \quad R = (y) = \infty$$

$$f(x) = \frac{4}{x + 5} \quad D(x) = \infty \quad R = (y) = (0, 0.8)$$

3. Determina el dominio y el rango

$$1 \quad y = \sqrt{x + 5} \quad D = 5 \quad R = \infty$$

$$y = \frac{9}{x - 5} \quad D = -22.28 \quad R = (0, -1.81)$$

4. Calcular las siguientes funciones

$$f(x) = (6x+1)^2 \quad f(-1)$$

$$f(-1) = (6(-1)+1)^2$$

$$f(-1) = (-6+1)^2 \quad f(-1) = 36$$

$$f(-1) = 36$$

$$f(x) = \frac{x+3}{x} \quad f(2)$$

$$f(2) = \frac{2+3}{2} \quad f(2) = 2.5$$

$$f(2) = 5/2$$

$$f(x) = \frac{6x+12}{3} \quad f(-4)$$

$$f(-4) = \frac{6(-4)+12}{3} \quad f(-4) = -4$$

$$f(-4) = \frac{-24+12}{3}$$

$$f(-4) = \frac{-12}{3}$$

5. Completa la tabla

Función	Grado	Maximas y Minimas
Polinómica		
$f(x) = x^5 - 2x^4 + 3x^3 - 2x^2 + 7x - 1$	1er	$M_1 = -1$ $m_1 = 0.19$
$f(x) = 3x^4 - 2x^3 + 9x^2 + 3$	2do	$M_1 = 3$ $m_1 = 0.67$
$f(x) = x^4 + 16x^3 + 4x + 3$	1er	$M_1 = 3$ $m_1 = -0.67$
$f(x) = 10x^3 - 6x^2 + 2x + 5$	1er	$M_1 = 5$ $m_1 = -0.57$