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Nombre del trabajo: Extraescolar 1

Materia: Calculo diferencial e integral

Grado: 2do Cuatrimestre

Grupo: a

FUNCION LINEAL

$$f(x) = 5x + 2$$

$$f(x) = 5(-1) + 2$$

$$f(x) = -3$$

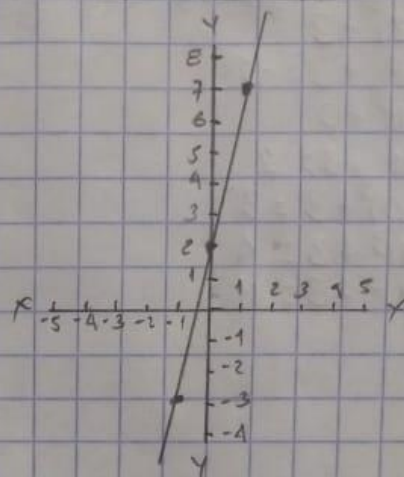
$$f(x) = 5(0) + 2$$

$$f(x) = 2$$

$$f(x) = 5(1) + 2$$

$$f(x) = 7$$

x	-1	0	1
y	-3	2	7



FUNCION CUADRATICA

$$f(x) = x^2 + 2x - 3$$

$$x = \frac{-b}{2a} \Rightarrow \frac{-2}{2} = -1$$

$$f(x) = (-1)^2 + 2(-1) - 3$$

$$f(x) = 1 - 2 - 3 \Rightarrow -4$$

$$f(x) = (-3)^2 + 2(-3) - 3$$

$$f(x) = 9 - 6 - 3 \Rightarrow 0$$

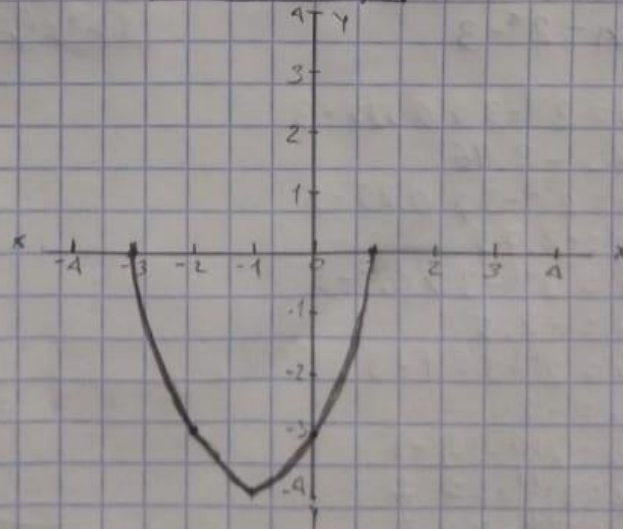
$$f(x) = (-2)^2 + 2(-2) - 3$$

$$f(x) = 4 - 4 - 3 = -3$$

$$f(x) = (0)^2 + 2(0) - 3 \Rightarrow -3$$

$$f(x) = (1)^2 + 2(1) - 3 \Rightarrow 0$$

x	-3	-2	-1	0	1
y	0	-3	-4	-3	0



Funcion CUBICA

$$f(x) = x^3 + 3$$

$$f(x) = (-2)^3 + 3$$

$$f(x) = -8 + 3 = -5$$

$$f(x) = (-1)^3 + 3$$

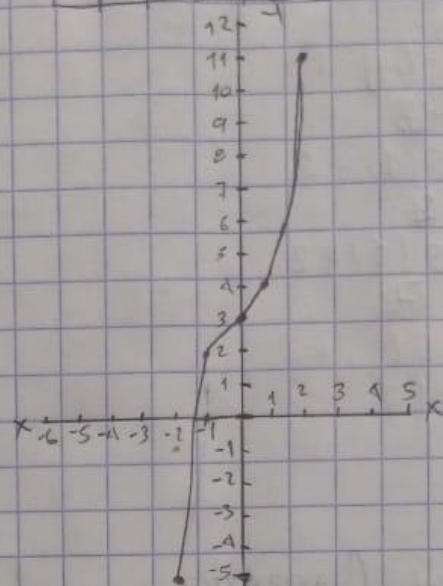
$$f(x) = -1 + 3 = 2$$

$$f(x) = (0)^3 + 3 = 3$$

$$f(x) = (1)^3 + 3 = 4$$

$$f(x) = (2)^3 + 3 = 11$$

x	-2	-1	0	1	2
y	-5	2	3	4	11



Funcion Exponencial

$$f(x) = 2^x - 3$$

$$f(x) = 2^{-3} - 3 \rightarrow 0.037 - 3$$

$$f(x) = -2.96$$

$$f(x) = 2^{-2} - 3 \rightarrow 0.25 - 3$$

$$f(x) = -2.75$$

$$f(x) = 2^{-1} - 3 \rightarrow 0.5 - 3$$

$$f(x) = -2.5$$

$$f(x) = 2^{(0)} - 3 = 1 - 3$$

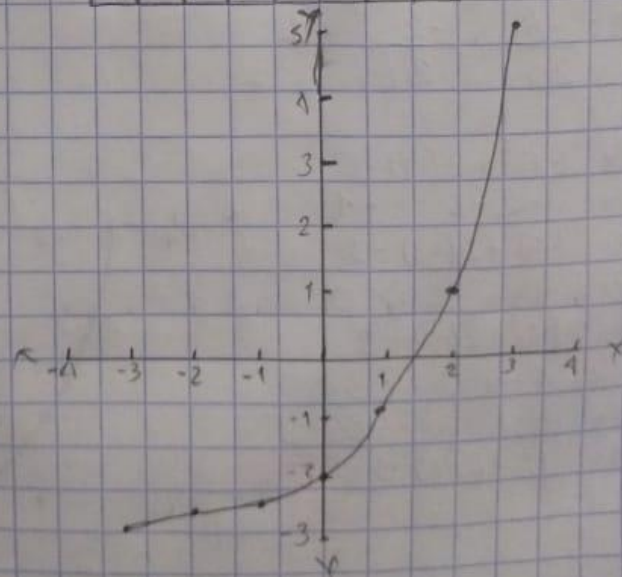
$$f(x) = -2$$

$$f(x) = 2^{(1)} - 3 \rightarrow 2 - 3$$

$$f(x) = 2^{(2)} - 3 \rightarrow 4 - 3$$

$$f(x) = 2^{(3)} - 3 \rightarrow 8 - 3$$

x	-3	-2	-1	0	1	2	3
y	2 ⁻³	2 ⁻²	2 ⁻¹	2 ⁰	2 ¹	2 ²	2 ³



DE LAS SIGUIENTES FUNCIONES, REALIZA LO QUE SE INDICA

$$f(x) = 4x + 3$$

$$g(x) = 3x - 7$$

DETERMINAR

$$(f+g)(x) = 4x + 3 + 3x - 7 \Rightarrow \boxed{7x - 4}$$

$$(f-g)(x) = 4x + 3 - (3x - 7) \Rightarrow \boxed{x + 10}$$

$$(f \cdot g)(x) = (4x + 3)(3x - 7) \Rightarrow 12x^2 - 28x + 9x - 21$$
$$\boxed{12x^2 - 19x - 21}$$

$$(f/g)(x) = \frac{4x + 3}{3x - 7}$$