



# Mi Universidad

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*Nombre del tema Problemario*

*Nombre de la Materia Calculo*

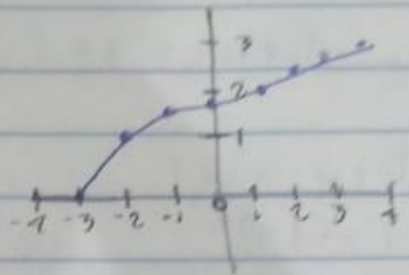
*Nombre del profesor Juan Jose Ojeda*

*Nombre de la Licenciatura Tecnico en enfermeria*

*Semestre 4to de preparatoria*

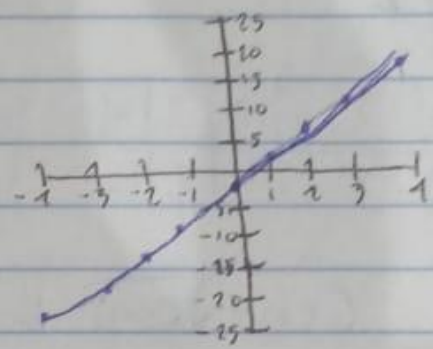
A)  $Y = \sqrt{(x+3)}$

x	-1	-3	-2	-1	0	1	2	3	4
y	0	0	1	1.4	1.7	2	2.2	2.4	2.6



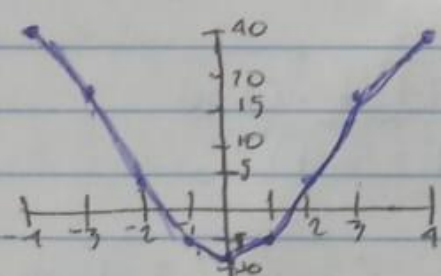
B)  $Y = 5x - 3$

x	-4	-3	-2	-1	0	1	2	3	4
y	-23	-18	-13	-8	-3	2	7	12	17



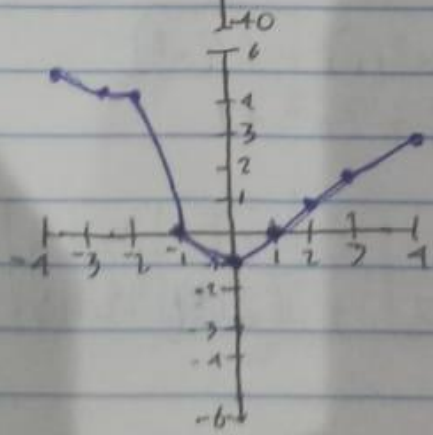
C)  $Y = 3x^2 - 8$

x	-4	-3	-2	-1	0	1	2	3	4
y	10	14	4	-5	-8	-5	4	14	40



D)  $Y = (x^2 - 1) / (x + 1)$

x	-4	-3	-2	-1	0	1	2	3	4
y	5.6	5	5	0	-1	0	1	2	3



2-A)  $f(x) = 3x - 2$        $g(x) = x^2 + 4$       Hallar las ecuaciones y su dominio

$f(x) = 3x - 2$        $g(x) = x^2 + 4$

$f \cdot g = (3x - 2) \cdot (x^2 + 4)$

$f + g = (3x - 2) + (x^2 + 4)$

$3x^3 + 12x - 2x^2 - 8$

$f + g = x^2 + 3x + 2$

$f(x) - g(x) = 3x^3 + 2x^2 + 12x - 8$

$f = (3x - 2)$

$g(x) = (x^2 + 4)$

x	-4	-3	-2	-1	0	1	2	3	4
y	-14	-11	-8	-5	-2	1	4	7	10

x	-4	-3	-2	-1	0	1	2	3	4
y	20	13	8	5	4	5	8	13	20

B)  $f(x) = \sqrt{x+4}$        $g(x) = \sqrt{x-1}$       Hallar ecuaciones y su dominio

$f(x) + g(x) = \sqrt{x+4} + \sqrt{x-1}$

$f(x) \cdot g(x) = \sqrt{x+4} \cdot \sqrt{x-1}$

$f(x) + g(x) = \sqrt{x^2 + 4 - 1}$

C)  $f(x) = x^3 + 1$        $g(x) = 2x^2$       Hallar ecuaciones y su dominio

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

$f(x) \cdot g(x) = (x^3 + 1) \cdot (2x^2)$

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

$2x^5 + 2x^2$

x	-4	-3	-2	-1	0	1	2	3	4
y	-63	-26	-7	0	1	2	9	28	65

x	-4	-3	-2	-1	0	1	2	3	4
y	32	18	8	2	0	2	8	18	32

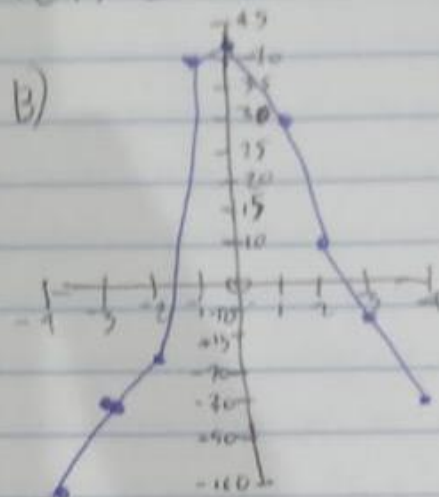
3) A)  $f(x) = x^2 - 7x^2 - 6x + 12$  demostrar que  $f(7) = 0$  y  $f(1) = 30$

$$f(x) = 30$$

$$f(x) = 13 - 7(x)^2 - 6(x) + 12 = 30$$

$$f(x) = x - 7^2 - 7(7) - 6(x) + 12 = 0$$

x	-1	-3	-2	-1	0	1	2	3	-1
y	-10	-30	10	10	12	30	10	-12	30



C) Sean  $f$  y  $g$  las funciones denotadas por:

$$f = \{(1,4), (2,5), (5,6), (7,2)\}$$

Encontrar  $(f \circ g)$  y  $(f \circ f)$

$$g = \{(2,5), (1,3), (5,11), (6,18), (7,13)\}$$

$$Df = \{1, 2, 5, 7\}$$

$$Rf = \{4, 5, 6, 2\}$$

$$Dg = \{2, 1, 5, 6, 7\}$$

$$Rg = \{5, 3, 11, 18, 13\}$$

$$Df + Dg = \{3, 1, 10, 13, 7\}$$

$$Rf + Rg = \{9, 2, 9, 16, 13\}$$

$$f \circ g = \{(3,9), (1,2), (10,9), (13,16), (7,13)\}$$