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

Dominio (x)	-4	-3	-2	-1	0	1	2	3	4
Rango (y)	0	0	1	1.43		2	2.73	3.44	4.64

$y = \sqrt{((-4)3)} = 0$
$y = \sqrt{(-3+3)} = 0$
$y = \sqrt{(-2+3)} = 1$
$y = \sqrt{(-1+3)} = 1.43$
$y = \sqrt{(0+3} = 1.73$
$y = \sqrt{(1+3)} = 2$
$y = \sqrt{(2+3)} = 2.23$
$y = \sqrt{(3+3)} = 2.44$
$y = \sqrt{(4+3)} = 2.64$

B) $y = 5x - 3$

Dominio (x)	-4	-3	-2	-1	0	1	2	3	4
Rango (y)	-23	-18	-13	-8	-3	2	7	12	17

$y = (-20 - 3) = -23$
$y = (-15 - 3) = -18$
$y = (-10 - 3) = -13$
$y = (-5 - 3) = -8$
$y = (0 - 3) = -3$
$y = (5 - 3) = 2$
$y = (10 - 3) = 7$
$y = (15 - 3) = 12$
$y = (-20 - 3) = 17$

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

Dominio (x)	-4	-3	-2	-1	0	1	2	3	4
Rango (y)	184	19	-4	-11			28	73	136

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

Dominio (x)	-4	-3	-2	-1	0	1	2	3	4
Rango (y)	45	20	5	0	-1	0	5	20	45

2.- Dada las funciones F y G tales que hallar
$f(x) = 3x - 2$ y $g(x) = x^2 + 4$, hallar $(f \cdot g)$ y $(f \circ g)$

$f(x) = 3x - 2$

$f \cdot g(x)$

$f(x) \cdot g(x)$

$f(x) \cdot g(x) = (3x - 2)(3x + 4.5) = (f \cdot g)(x) = 9x^2 + 15x + 2$

$f(x) - g(x)$

$f(x) = 2x - 5$

$f + g(x)$

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

$8x^3 + 4x^2 - 12x^2 - 3x$

$= 8x^2 - 10x^2 - 3x$

Dominio (x)	-4	-3	-2	-1	0	1	2	3	4
Rango (y)	-14	4	-8	-5	-2	1	4	7	10

Dominio (x)	-4	-3	-2	-1	0	1	2	3	4
Rango (y)	-1	-5	0	3	4	5	8	13	20

3.- Resuelve de manera clara

A) Dada $F(x) = x^3 - 7x^2 - 6x + 42$ demostrar que $f(7) = 0$ y $F(1) = 30$

$f(7) = 0$

$f(1) = 13 \cdot 7(1)^2 - 6(1) = 30$

$f(7) = 7^3(7)7 - 6(7) + 42$

$343 - 343 - 42 + 42 = 0$

C) Sean f y g las funciones

$f = \{(1,7), (2,5), (5,8), (7,-2)\}$

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

Encontrar $(f+6)$ y $[f+6]$

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

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

$D_g \cap D_f = \{3, -1, 10, 13, 7\}$ $R_f = \{4, 5, 8, -2\}$

$D_f \cap D_g = \{6, 2, 4, 16, 13\}$ $R_g = \{2, -3, 1, 10, 13\}$

$f+6 = (3, 6)\ (-1, 2)\ (10, 4)\ (13, 16)\ (7, 12)$

$D_f \{1, -2, 5, 7\}$ $R_f = (4, 5, 8, -7)$

$D_X \{2, 1, 5, 6, 7\}$ $R_g = (-2, -3, 1, 18)$

$D_f \{2, -1, 15, 42, 7\}$

$R_f \{8, 15, 5, -30, 13\}$

$f_g \{(2, 8), (-2, -15)\ (5, 8)\ (42, -36)\ (7, 13)$