Problemario

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Nombre del tema: Calculo

Parcial: I

Nombre de la Materia: Calculo

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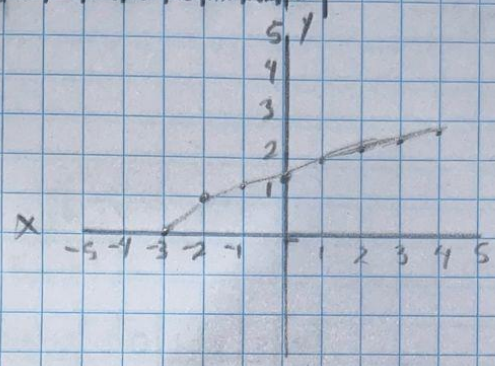
Nombre de la Licenciatura: Técnico en enfermería

Cuarto Semestre

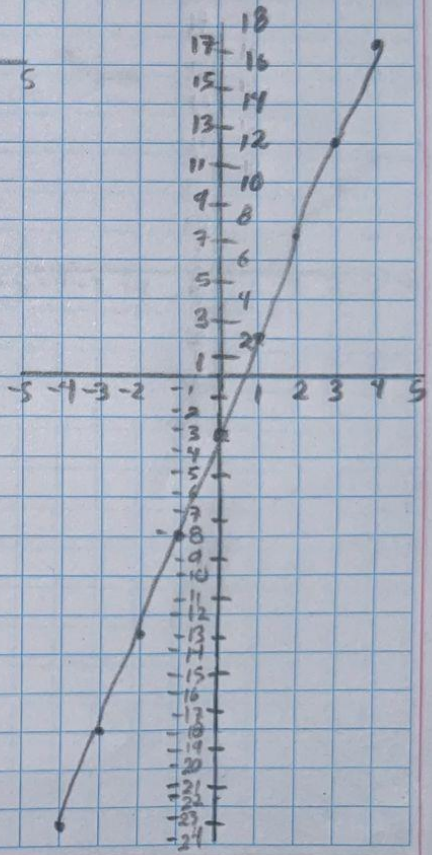
A) $Y = \sqrt{(x+3)}$

D	X	-4	-3	-2	-1	0	1	2	3	4
R	Y	IND	0	1	1.4	1.7	2	2.2	2.4	2.6

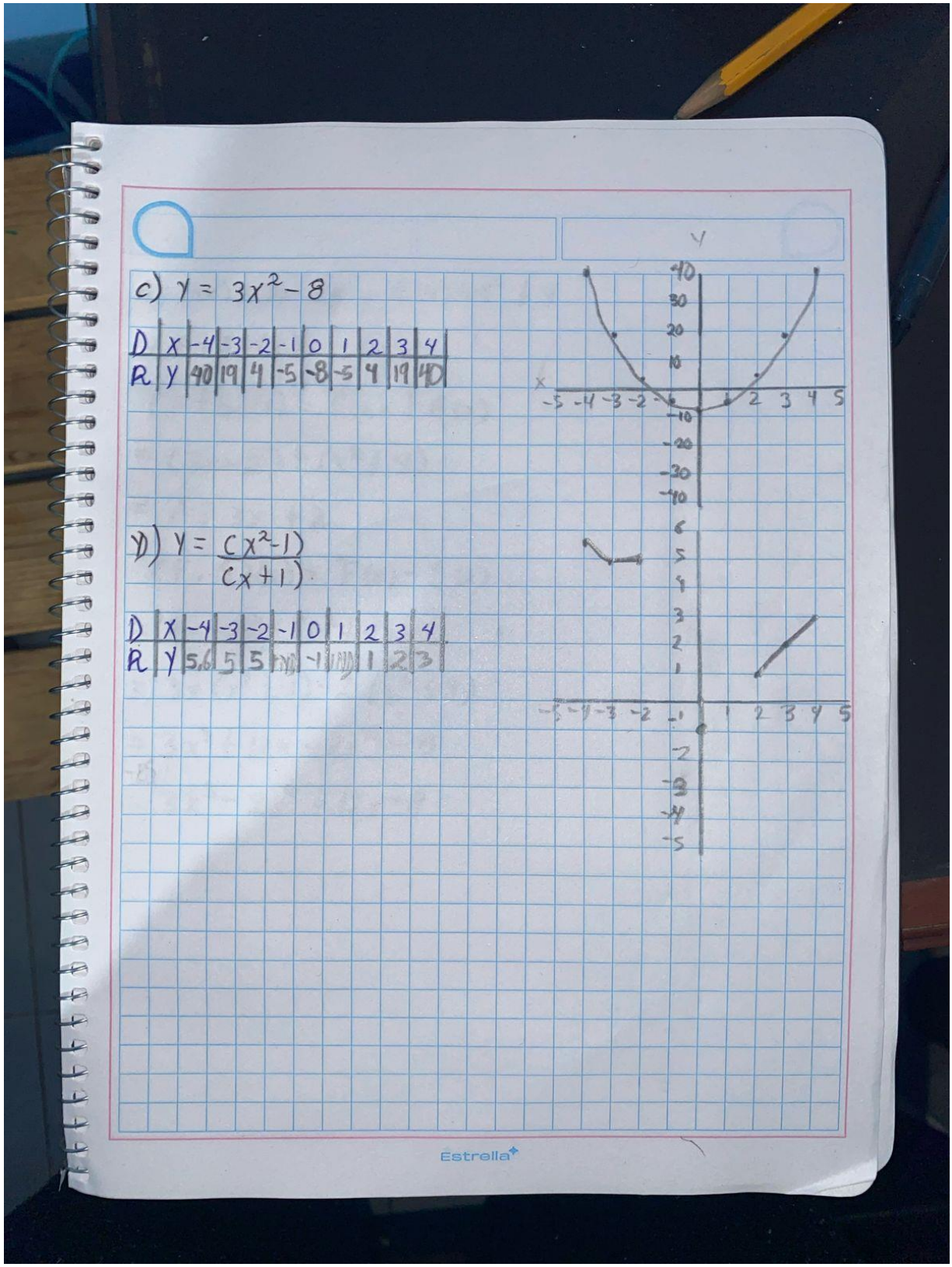


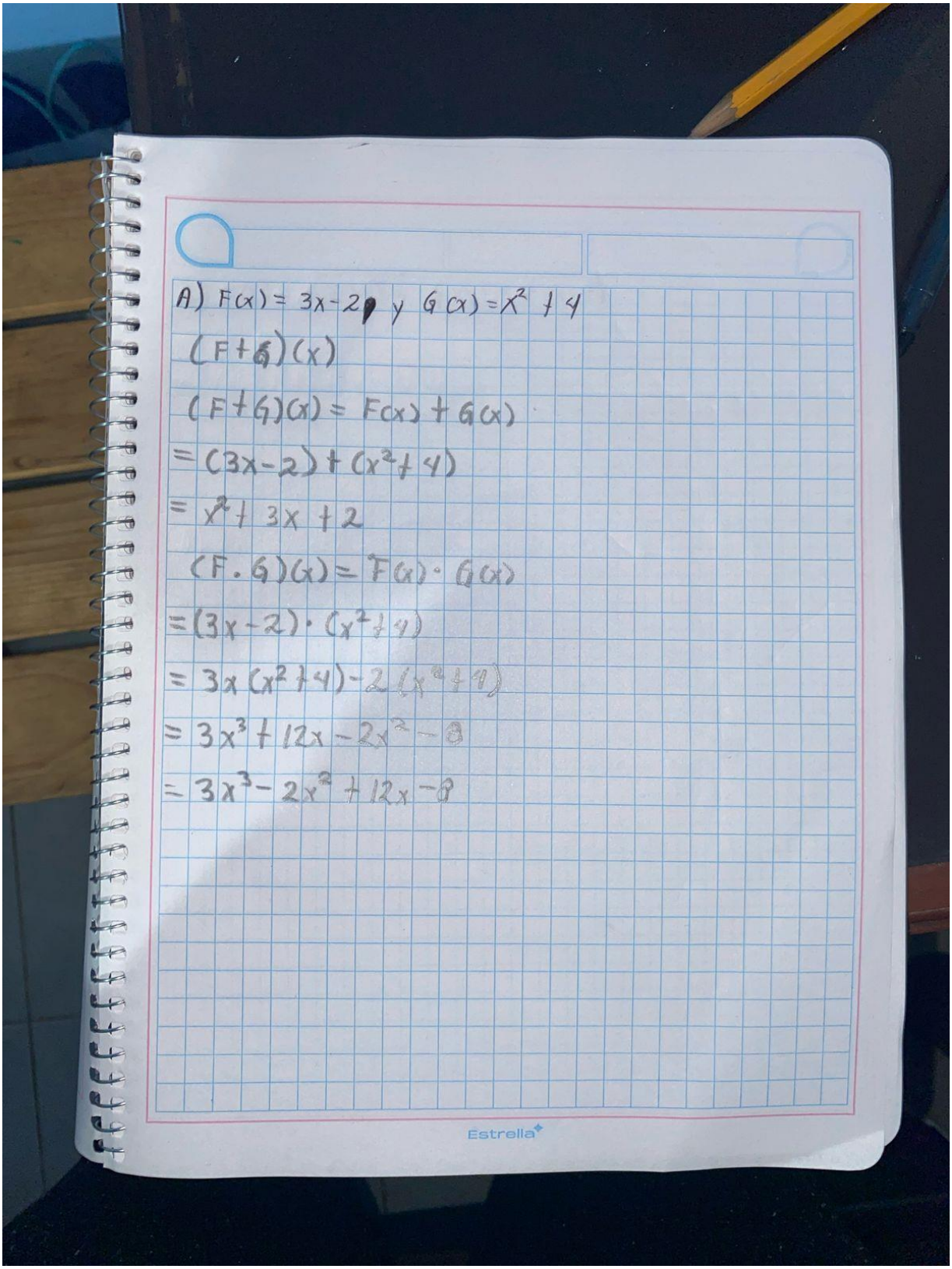
B) $Y = 5x - 3$

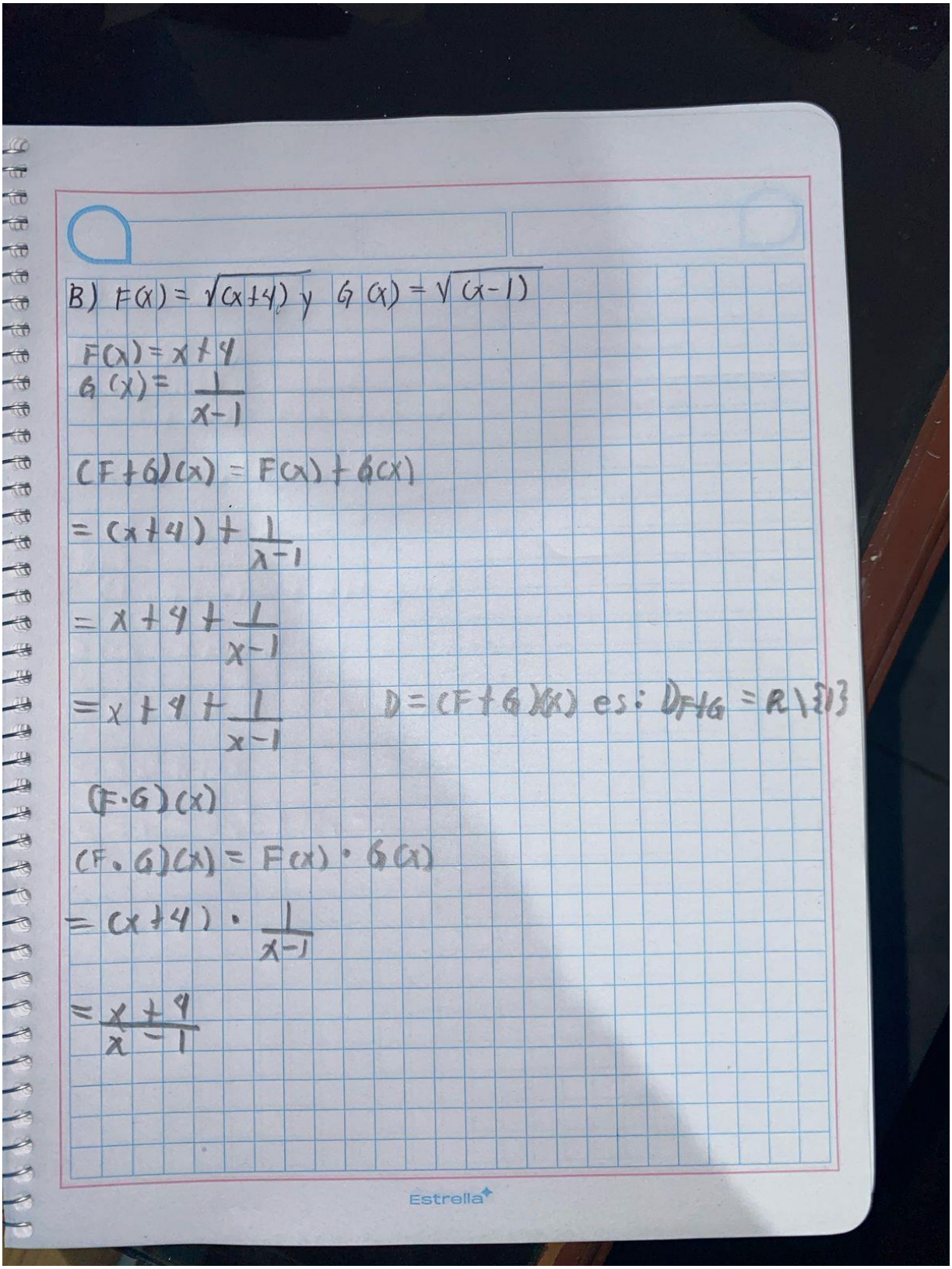
D	X	-4	-3	-2	-1	0	1	2	3	4
R	Y	-23	-18	-13	-8	-3	2	7	12	17

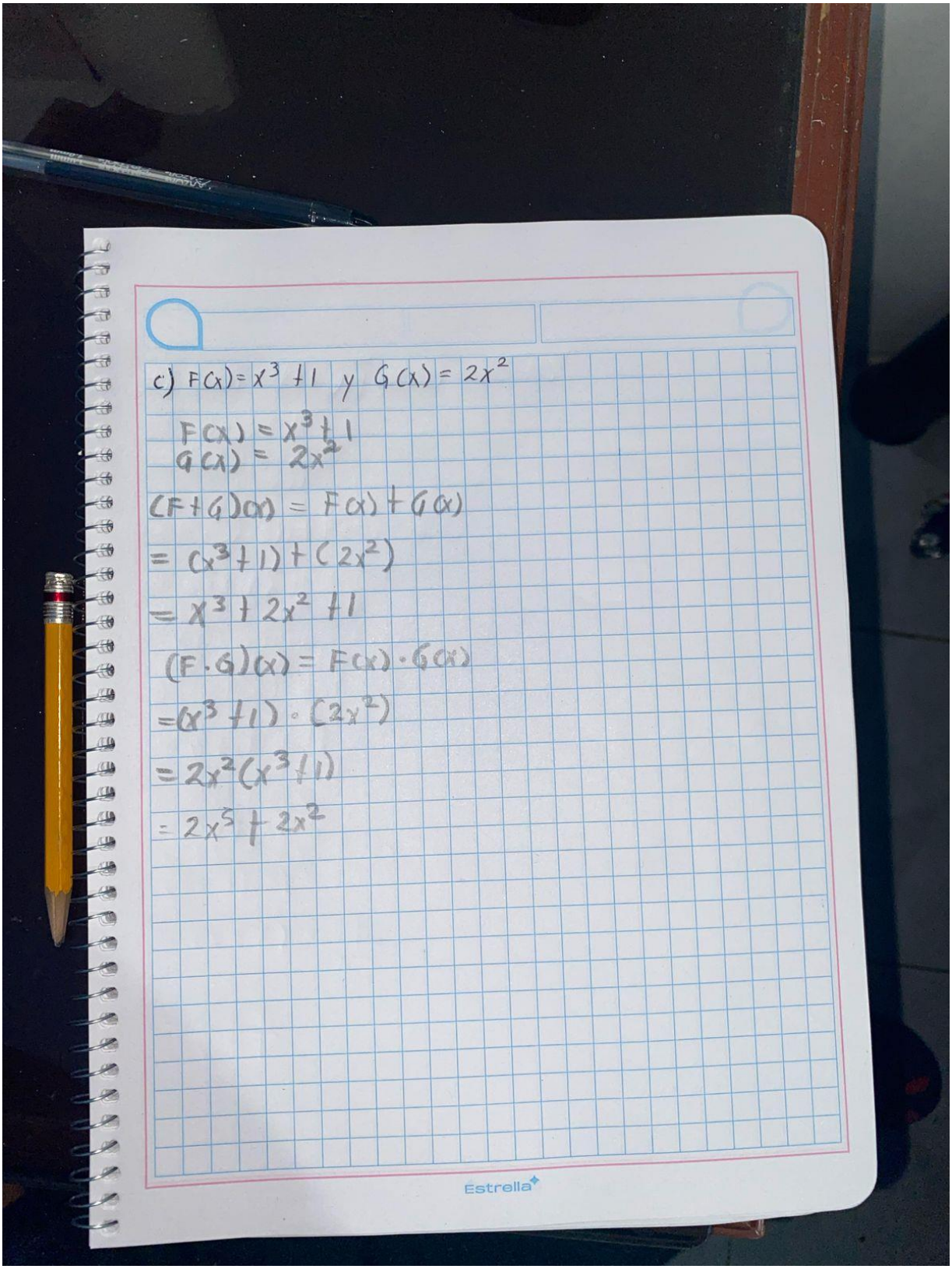


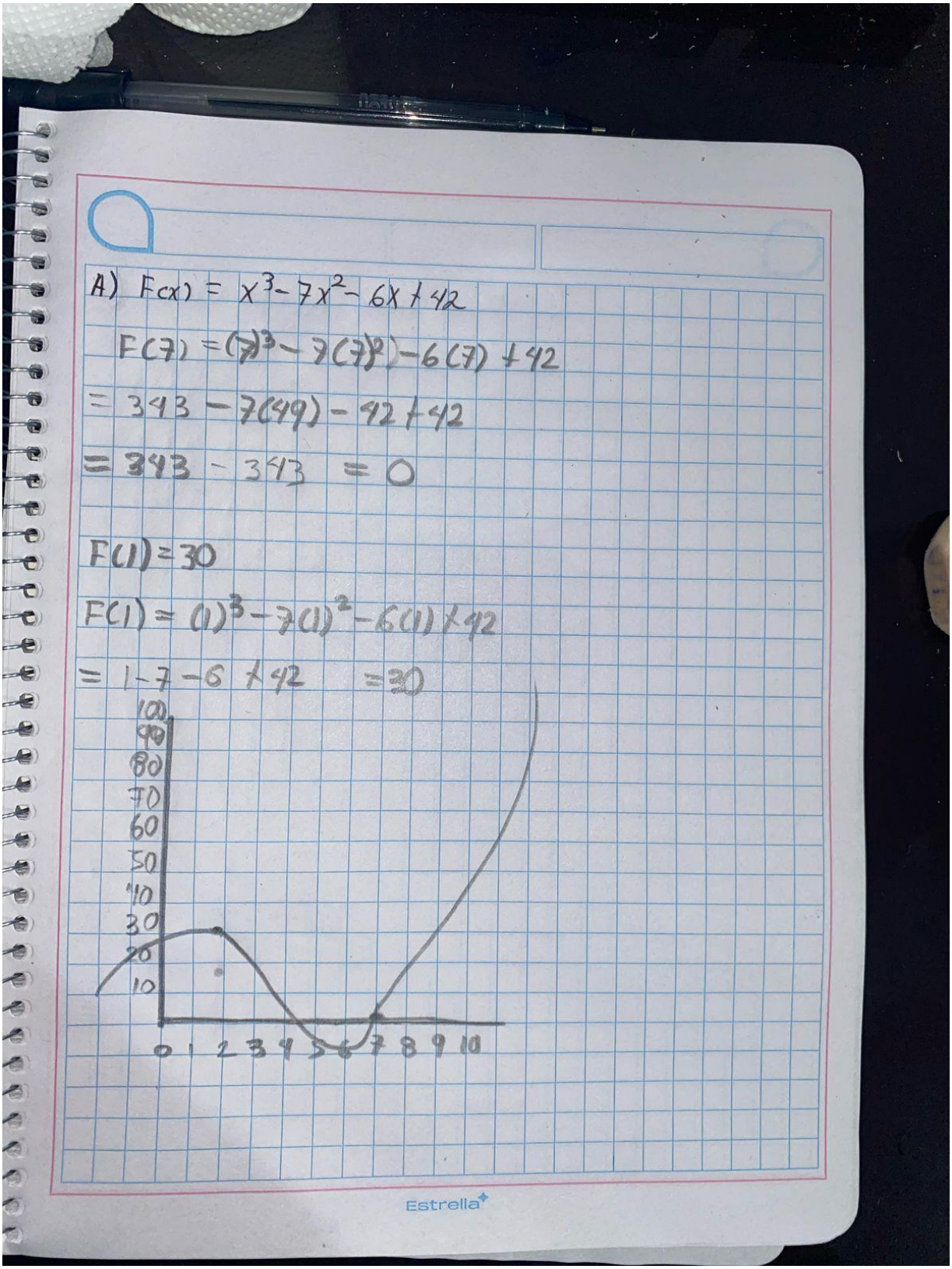
Estrella

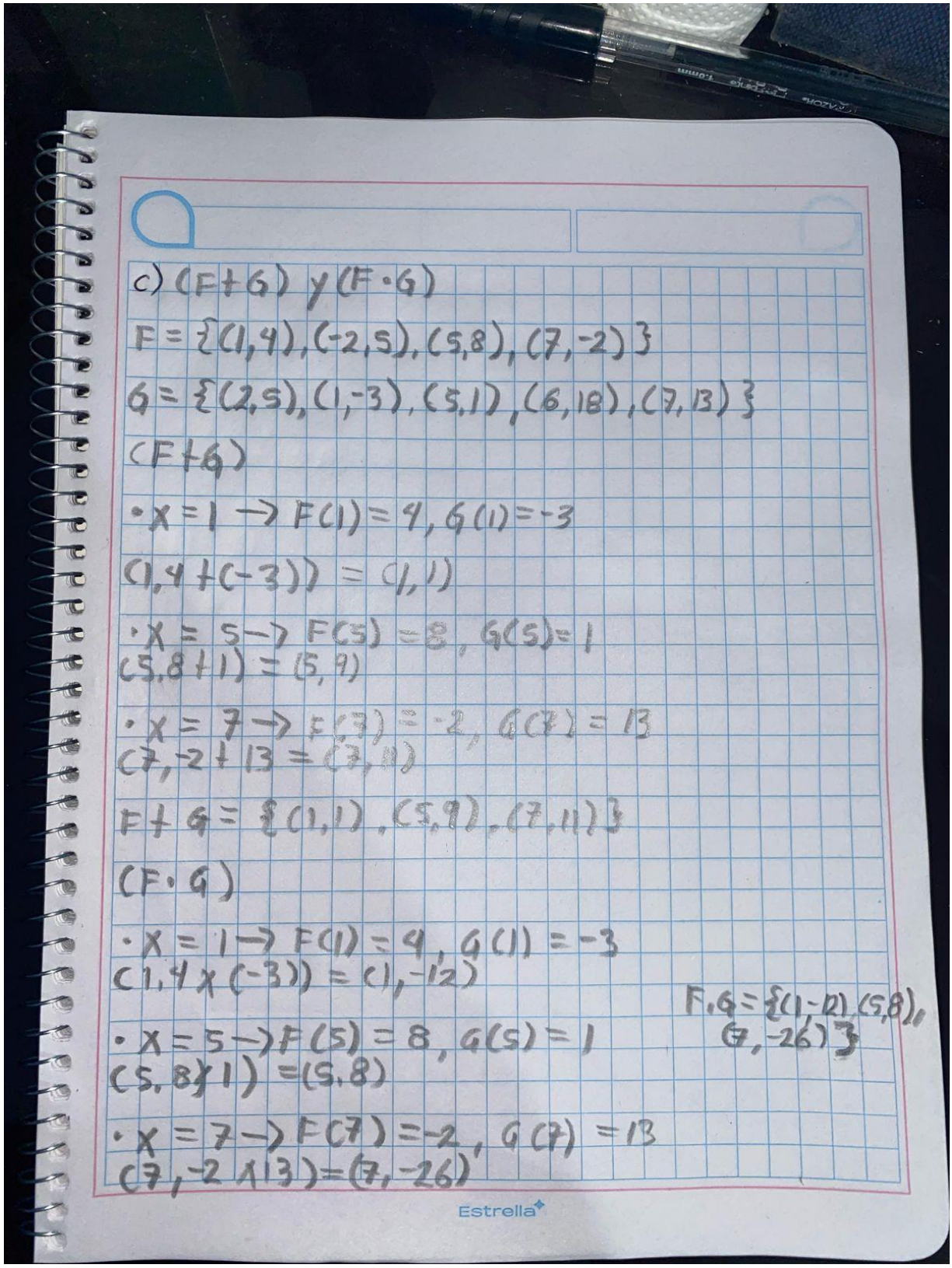

c) $y = 3x^2 - 8$
D x -4 -3 -2 -1 0 1 2 3 4
R y 40 19 4 -5 -8 -5 4 19 40
d) $y = \frac{(x^2-1)}{(x+1)}$
D x -4 -3 -2 -1 0 1 2 3 4
R y 5.6 5 5 -1 1 2 3
Estrella


A) F(x) = 3x - 2 y G(x) = x² + 4
(F+G)(x)
(F+G)(x) = F(x) + G(x)
= (3x-2) + (x²+4)
= x² + 3x + 2
(F.G)(x) = F(x) · G(x)
= (3x-2) · (x²+4)
= 3x (x²+4) - 2 (x²+4)
= 3x³ + 12x - 2x² - 8
= 3x³ - 2x² + 12x - 8
Estrella


B) $F(x) = \sqrt{(x+4)}$ y $G(x) = \sqrt{(x-1)}$
$F(x) = x + 4$
$G(x) = \frac{1}{x-1}$
$(F+G)(x) = F(x) + G(x)$
$= (x+4) + \frac{1}{x-1}$
$= x + 4 + \frac{1}{x-1}$
$= x + 4 + \frac{1}{x-1}$
$D = (F+G)(x)$ es: $D_{F+G} = R \setminus \{1\}$
$(F \cdot G)(x)$
$(F \cdot G)(x) = F(x) \cdot G(x)$
$= (x+4) \cdot \frac{1}{x-1}$
$= \frac{x+4}{x-1}$
Estrella


c) F(x) = x³ + 1 y G(x) = 2x²
F(x) = x³ + 1
G(x) = 2x²
(F+G)(x) = F(x) + G(x)
= (x³ + 1) + (2x²)
= x³ + 2x² + 1
(F·G)(x) = F(x) · G(x)
= (x³ + 1) · (2x²)
= 2x²(x³ + 1)
= 2x⁵ + 2x²
Estrella


A) F(x) = x³ - 7x² - 6x + 42
F(7) = (7)³ - 7(7)² - 6(7) + 42
= 343 - 7(49) - 42 + 42
= 343 - 343 = 0
F(1) = 30
F(1) = (1)³ - 7(1)² - 6(1) + 42
= 1 - 7 - 6 + 42 = 30
100
90
80
70
60
50
40
30
20
10
0 1 2 3 4 5 6 7 8 9 10
Estrella


c) (F+G) y (F·G)
F = {(1,4), (-2,5), (5,8), (7,-2)}
G = {(2,5), (1,-3), (5,1), (6,18), (7,13)}
(F+G)
• X = 1 → F(1) = 4, G(1) = -3
(1, 4 + (-3)) = (1, 1)
• X = 5 → F(5) = 8, G(5) = 1
(5, 8 + 1) = (5, 9)
• X = 7 → F(7) = -2, G(7) = 13
(7, -2 + 13 = (7, 11)
F + G = {(1,1), (5,9), (7,11)}
(F·G)
• X = 1 → F(1) = 4, G(1) = -3
(1, 4 x (-3)) = (1, -12)
• X = 5 → F(5) = 8, G(5) = 1
(5, 8 x 1) = (5, 8)
• X = 7 → F(7) = -2, G(7) = 13
(7, -2 x 13) = (7, -26)
F.G = {(1,-12), (5,8), (7,-26)}
Estrella