Trabajo practico evaluativo

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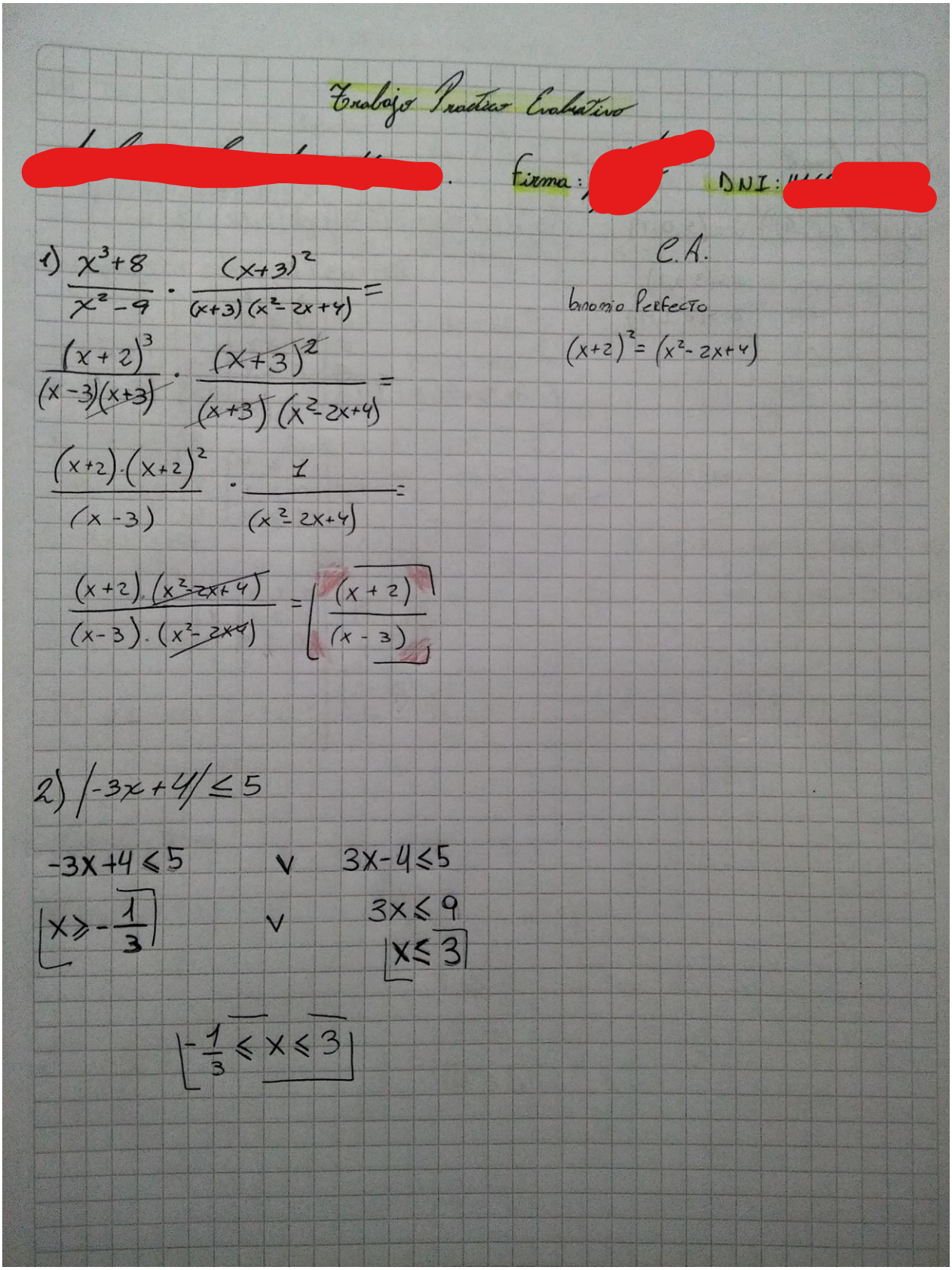

3) $P(x) = -4x^3 + kx + 2$ $\quad Q(x) = x - 2$ $\quad R(x) = -40$

$P(2) = -4(2)^3 + k(2) + 2$

$P(2) = R(x)$

$-40 = -4 \cdot 8 + 2k + 2$

$-40 + 32 - 2 = 2k$

$\frac{-10}{2} = k$

$\boxed{-5 = k}$

4) $-\sqrt{125} + \sqrt{27} - \frac{7}{2} + \frac{2}{1-\sqrt{5}}$

$-\sqrt{25}\cdot\sqrt{5} + \sqrt{9}\cdot\sqrt{3} - \frac{7}{2} + \frac{2}{1-\sqrt{5}} \cdot \frac{1+\sqrt{5}}{1+\sqrt{5}}$

$-5\sqrt{5} + 3\sqrt{3} - \frac{7}{2} - \frac{1+\sqrt{5}}{2}$

$\frac{2(-5)\sqrt{5} + 23\sqrt{3} - 7 - (1+\sqrt{5})}{2}$

$\frac{-10\sqrt{5} + 6\sqrt{3} - 7 - 1 - \sqrt{5}}{2}$

$\boxed{\frac{-11\sqrt{5} + 6\sqrt{3} - 8}{2}} \simeq -11$

C.A

$\frac{2(1+\sqrt{5})}{(1+\sqrt{5})(1-\sqrt{5})} = \frac{2(1+\sqrt{5})}{1-5} = \frac{2(1+\sqrt{5})}{-4}$

$\frac{1+\sqrt{5}}{-2}$

4) b) $(12-3x).(x+1) \leq 0$

	$(-\infty;-1)$	-1	$(-1;4)$	4	$(4;+\infty)$
$(12-3x)$	+	15	+	0	−
$(x+1)$	−	0	+	5	+
Resol:	−	0	+	0	−

$S = (-\infty;-1] \cup [4;+\infty)$

5)

$$\begin{cases} 3x+2y+z=1 \\ 5x+3y+4z=2 \\ x+y-z=0 \end{cases}$$

$$A = \left(\begin{array}{ccc|c} 3 & 2 & 1 & 1 \\ 5 & 3 & 4 & 2 \\ 1 & 1 & -1 & 0 \end{array}\right) \qquad A^* = \left(\begin{array}{ccc} 2 & 1 & 1 \\ 3 & 4 & 2 \\ 1 & -1 & 0 \end{array}\right)$$

$\text{Rango}(A) = -9+5+8-3+10-12 = -1$

$\text{Rango}(A^*) = 0+(-3)+2-4-0-(-4) = -1$

$R(A) = R(A^*) \neq n$

S.C.I.

$n^\circ = 3$

[redacted]