



ALGEBRA

*TÉCNICO EN RECURSOS HUMANOS*  
*I ER CUATRIMESTRE*

PRIMER SEMESTRE DE  
BACHILLERATO

# ÁLGEBRA

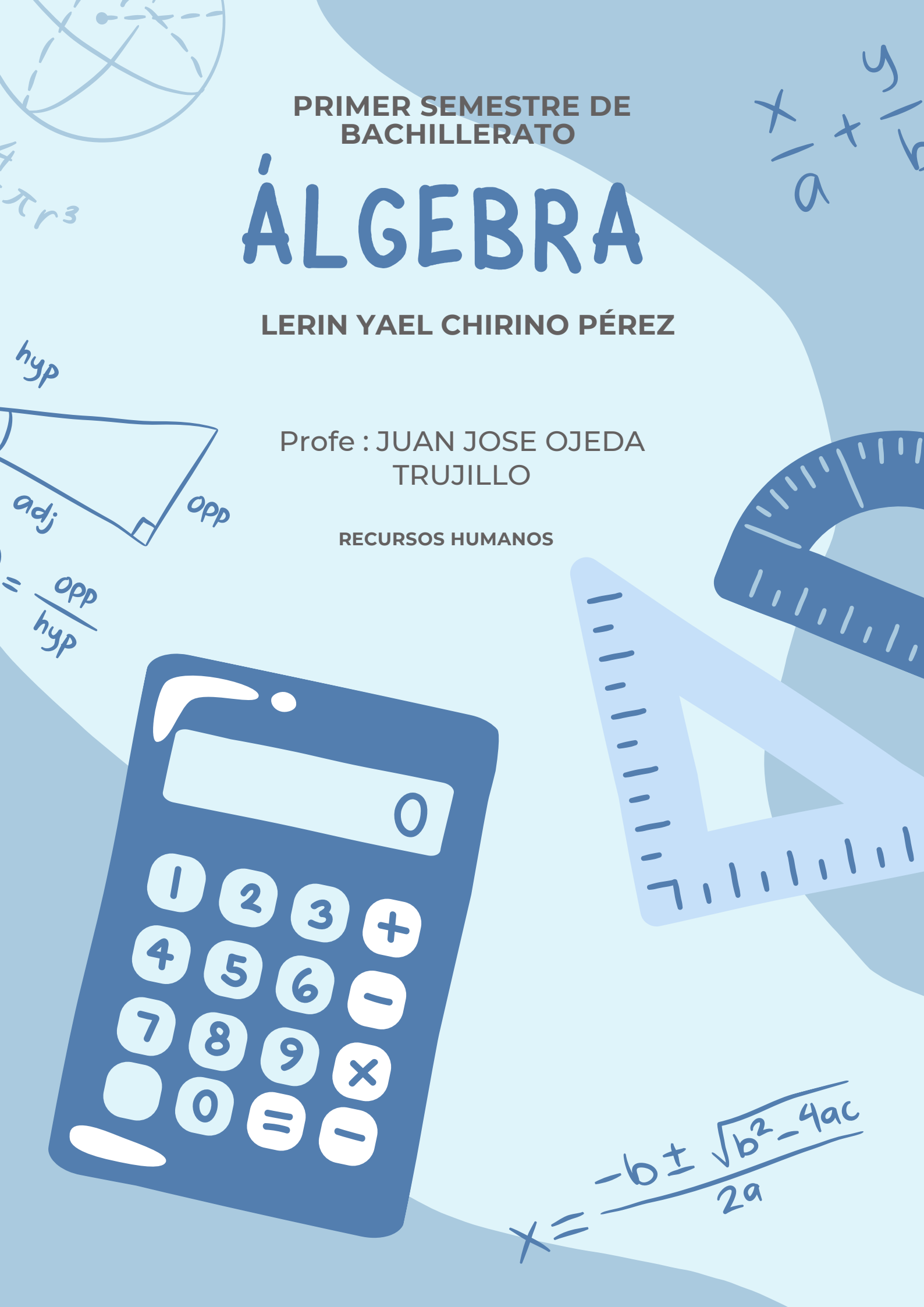
LERIN Yael CHIRINO PÉREZ

Profe : JUAN JOSE OJEDA  
TRUJILLO

RECURSOS HUMANOS



$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$



# FORMULARIO:

3.1

$$1: (3a^3 + 5a^2 - 4) : (3a)$$

$$\boxed{9a^4 + 15a^3 - 12a}$$

3.2

$$2: \left( \frac{2}{3}a^2b^2 - \frac{1}{4}a^2b^4 + \frac{5}{6}ab^4 - \frac{2}{5}b^5 \right) : \left( -\frac{1}{2}ab^2 \right) = \frac{1}{6}a^3b^4 + \frac{3}{4}a^2b^6 - \frac{1}{3}a^2b^6 + \frac{9}{10}ab^7$$

$$\boxed{-\frac{1}{6}a^3b^4 + \frac{3}{4}a^3b^6 - \frac{1}{3}a^2b^6 + \frac{9}{10}ab^7}$$

$$3: (x^4 - 2x^3 - 11x^2 + 30x - 20) : (x^2 + 3x - 2)$$

$$\begin{array}{r} x^6 + 3x^5 - 2x^4 \\ -2x^5 - 6x^4 + 4x^3 \\ \hline -11x^4 - 33x^3 + 22x^2 \\ +30x^3 + 90x^2 - 60x \\ \hline -20x^2 - 60x + 40 \end{array}$$

$$\boxed{R = x^6 + 1x^5 - 19x^4 + 1x^3 + 92x^2 + 40}$$

$$4: (x^6 + 5x^4 + 3x^2 - 2x) : (x^2 - x + 3)$$

$$\begin{array}{r} x^8 - x^7 + 3x^6 \\ +5x^6 - 5x^5 + 15x^4 \\ +3x^4 - 3x^3 + 9x^2 \\ -2x^3 + 2x^2 - 6x \end{array}$$

$$\boxed{x^8 + 5x^4 + 1x^5 + 10x^2 + 11x^2 - 6x}$$

$$5: (x^4 - 2x^3 - 11x^2 + 30x - 20) : (x^2 + 3x - 2)$$

$$x^6 + 3x^5 - 2x^4$$

$$- 2x^5 - 33x^4 + 4x^3$$

$$- 11x^4 - 33x^3 + 22x^2$$

$$+ 30x^3 + 90x^2 -$$

$$- 20x^2 - 60x + 40$$

$$B = x^6 + 1x^5 - 46x^4 + 1x^3 + 92x$$

$$6: (x^6 + 5x^4 + 3x^2 - 2x) : (x^2 - x + 3)$$

$$x^8 - x^7 + 3x^6$$

$$+ 5x^6 - 5x^5 + 15x^4$$

$$+ 3x^4 - 3x^3 + 9x^2$$

$$- 2x^3 + 2x^2 - 6x$$

$$x^8 + 5x^7 + 1x^5 + 10x^4 + 10x^2 - 6x$$

$$R = x^8 + 5x^7 + 1x^5 + 10x^4 + 10x^2 - 6x$$

$$7: (2x^4 - 2x^3 + 3x^2 + 5x + 10) : (x + 2)$$

$$2x^5 - 2x^4 + 3x^3 + 5x^2 + 10x$$

$$4x^4 - 4x^3 + 5x^2 + 10x + 20$$

$$2x^5 + 2x^4 - 4x^3 + 11x^2 + 20x + 20$$

$$8: (x^{10} - 1024) : (x + 2)$$

$$x^{11} - 1024x$$

$$+ 1024x - 2x^{10}$$

$$x^{11} - 2x^{10}$$

$$9: (x^3 - 5x - 1) : (x - 3)$$

$$x^4 - 5x^2 - 1x$$

$$3x^3 + 15x - 3$$

$$x^4 - 2x^3 + 14x - 3$$

$$10: (R^4 S^3 T^2 U)^5 \quad (R^4)^5 (S^3)^5 (T^2)^5 (U)^5$$

$$\boxed{R^{20} S^{15} T^{10} U^5}$$

$$11: (-A^3 B^4 C^2 D^5)^6 = \boxed{-A^{18} B^{24} C^{12} D^{30}}$$

$$12: (-3x^6 y^3 z^2)(-3x^6 y^3 z^2)$$

$$\boxed{+9x^{12} y^6 z^4}$$

$$13: \left( \frac{2}{5} a^2 b - \frac{4}{3} ab - 4 \right) \left( \frac{3}{2} ab^2 \right) =$$

$$\frac{19}{20} a^3 b^3 - \frac{1}{6} a^2 b^3 - \frac{5}{2} ab^2$$

$$14: (3x^3 + 2y^2)(3x^3 + 2y^3)^2$$

$$\boxed{(3x^3 + 2y^2)(9x^3 + 4y^5)}$$

$$27x^6 + 12x^8$$

$$+18y^3 + 12x^8$$

$$\boxed{27x^6 + 30y^8 + 12x^8}$$