



Nombre del alumno: Cynthia Mariana Jiménez Ramírez.

Nombre del profesor: Juan José Ojeda Trujillo.

Nombre del trabajo: Problemario De Tercera De Algebra.

Materia: Algebra.

Grado: Primero.

Grupo: A.

Comitán de Domínguez Chiapas a 19 de Noviembre de 2021.

Cynthia Mariana Jimenez Ramirez.

19/11/2021

Problemas de tercera de algebra:

$$1 - (-4x)(5x^3y^4)(-2x^2y)$$

$$40x^6y^5$$

$$2 - (-2A^3BC)(-4A^2B^2C^2)(5ABC)(-6AB^2)$$

$$8A^5B^3C^3 - 10A^4B^3C^3 + 12A^4B^3C$$

$$3 - (3A^3 + 5B^2 - 4)(3A)$$

$$9A^4 - 15B^2 - 12A$$

$$4 - \left(\frac{2}{3}A^3B^2 - \frac{1}{4}A^2B^3 + \frac{5}{6}AB^4 - \frac{2}{5}B^5\right)\left(-\frac{1}{2}AB^2\right)$$

$$-\frac{2}{6}A^4B^4 + \frac{1}{8}A^3B^5 - \frac{5}{12}A^2B^6 + \frac{2}{10}AB^7$$

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

$$1x^6 - 2x^5 - 11x^4 + 30x^3 - 20x^2$$

$$+ 3x^5 - 6x^4 - 33x^3 + 90x^2 - 60x$$

$$- 2x^4 + 4x^3 + 22x^2 - 60x + 40$$

$$1x^6 + 5x^5 - 19x^4 + 67x^3 + 122x^2 - 120x + 40$$

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

$$1x^5 + 5x^4 + 3x^3 - 2x^2$$

$$- 4x^3 - 1x^2 - 5x + 2x$$

$$+ 3x^3 + 15x^2 + 9x - 6x$$

$$1x^5 + 9x^4 + 7x^3 - 22x^2 + 11x - 6x$$

10/11/2021

19/11/2021

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

$$2x^5 - 2x^4 + 3x^3 + 5x^2 + 10x + 4x^4 - 4x^3 + 6x^2 + 10x + 20$$

$$2x^5 + 2x^4 - 1x^3 + 1x^2 + 20$$

$$8 - (x^4 - 2x^3 - 11x^2 + 30x - 20)(x^2 + 3x - 2)$$

$$x^6 - 3x^5 + 2x^4 - 2x^3 - 6x^4 + 4x^3 - 11x^4 - 33x^3 + 22x^2 + 30x^3 + 90x^2 - 60x + 40 - 20x^2 - 60x + 40$$

$$x^6 - 5x^5 - 19x^4 + 87x^3 + 72x^2 - 80x + 40$$

$$9 - (x^5 + 5x^4 + 3x^3 - 2x)(x^2 - x + 3)$$

$$x^7 - x^6 + 3x^5 + 5x^6 + 8x^5 + 3x^7 - 3x^6 + 6x^5 - 2x^6 + 2x^5 - 5x^4$$

$$x^7 + 5x^6 + 8x^5 - 5x^4 + 8x^5 - 5x^4$$

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

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

$$2x^5 - 6x^4 + 12x^3 + 25x^2 + 20x + 20$$

19/11/2021

$$11 - (a^2 + 2b)^3$$

$$(a^2 + 2b)(a^2 + 2b)(a^2 + 2b)$$

$$\begin{array}{r} a^4 + 2a^2b + a^4 + 2a^2b \\ + 2a^2b + 4b^3 + 2a^2b + 2b^4 \\ \hline a^4 + 4a^2b + 4a^2b^2 + 4a^2b^3 + 2b^4 \end{array}$$

$$12 - (5x^3 + 3y^2 - 4xy)^2$$

$$(5x^3 + 3y^2 - 4xy)(5x^3 + 3y^2 - 4xy)$$

$$\begin{array}{r} 10x^6 + 15x^3y^2 - 20x^4y \\ + 15x^3y^2 + 9y^4 - 12xy^3 \\ - 20x^4y - 12xy^3 \\ \hline 10x^6 + 30x^3y^2 - 40xy^3 - 24xy^3 \end{array}$$

$$13 - \left(\frac{1}{5}x + \frac{2}{3}\right)^3$$

$$\left(\frac{1}{5}x + \frac{2}{3}\right)\left(\frac{1}{5}x + \frac{2}{3}\right)\left(\frac{1}{5}x + \frac{2}{3}\right)$$

$$\frac{1}{25}x^2 + \frac{2}{15} + \frac{1}{25}x + \frac{2}{15}$$

$$+ \frac{2}{15}x + \frac{4}{9} + \frac{2}{15}x + \frac{4}{9}$$

$$\frac{1}{25}x^2 + \frac{4}{30}x + \frac{5}{34}x + \frac{4}{30}x + \frac{4}{9}$$

19/11/2021

$$14 - (4x^3y - 2z)^3$$

$$(4x^3y - 2z) + (4x^3y - 2z) + (4x^3y - 2z)$$

$$\begin{array}{r}
 16x^6y^2 + 8x^3yz + 16x^6y^2 - 8x^3yz \\
 - 8x^3yz + 4z^2 + 8x^3z + 4z^4 \\
 \hline
 16x^6y^2 - 16x^3yz + 20x^6y^2 - 8x^3yz + 4z^4
 \end{array}$$

$$15 - \left(\frac{5}{2}a^2 - \frac{4}{3}b^3\right)^3$$

$$\left(\frac{5}{2}a^2 - \frac{4}{3}b^3\right) + \left(\frac{5}{2}a^2 - \frac{4}{3}b^3\right) + \left(\frac{5}{2}a^2 - \frac{4}{3}b^3\right)$$

$$\frac{25}{4}a^4 - \frac{20}{6}b^3$$

$$\frac{25}{4}a^4 - \frac{20}{6}b^3$$

$$\frac{25}{4}a^4 - \frac{20}{6}b^3$$

$$\frac{75}{12}a^4 - \frac{60}{18}b^3$$