



**Nombre de alumno: Perez Sierra Arez
De Jesus**

**Nombre del profesor: Juan José
Ojeda**

Nombre del trabajo: examen

Materia: algebra

Grado: 1

Grupo: A

VDS

Examen Perez Sierra Arce de Jesus

$$\begin{aligned}
 1. & (-4x)(5x^3y^3)(-2x^2y) \\
 &= -4 \times 4(5y^3)(-2x^2y) \\
 &= -4 \times 6(5y^3)(-2y) \\
 &= -4 \times 6y^4(5)(-2) \\
 &= -4 \times 6y^4(-10) \\
 &= 40x^6y^4
 \end{aligned}$$

$R = 40x^6y^4$

$$\begin{aligned}
 2. & (-2a^3bc)(-4a^2b^2c^2)(5abc)(-6ab^2) \\
 &= -2a^3bc(-4b^2c^2)(5bc)(-6b^2) \\
 &= -2a^3b^6c(-4c^2)(5)(-6) \\
 &= -2a^3b^6c^3(-4)(5)(-6) \\
 &= -2a^3b^6c^3(-4)(-30) \\
 &= -2a^3b^6c^3(120) \\
 &= a^3b^6c^3(240) \\
 &= 240a^3b^6c^3
 \end{aligned}$$

$R = 240a^3b^6c^3$

$$\begin{aligned}
 3. & (3a^3 + 5b^2 - 4)(3a) \\
 &= 9a^4 + 15b^2 - 4(3a) \\
 &= 9a^4 + 15b^2 - 12a \\
 &= 9a^4 + 15ab^2 - 12a
 \end{aligned}$$

$R = 9a^4 + 15ab^2 - 12a$

$$\begin{aligned}
 4. & \left(\frac{2}{3}a^3b - \frac{1}{4}a^2b^3 + \frac{5}{6}ab^4 - \frac{2}{5}b^5\right)\left(-\frac{1}{2}ab^2\right) \\
 &= \left(\frac{2}{3}\right)\left(-\frac{1}{2}\right)(a^3b^2)(ab^2) - \frac{1}{3}a^4b^4 \\
 &= \left(-\frac{1}{4}\right)\left(-\frac{1}{2}\right)(a^2b^3)(ab^2) - \frac{1}{8}a^3b^5 \\
 &= \left(\frac{5}{6}\right)\left(-\frac{1}{2}\right)(ab^4)(ab^2) - \frac{5}{12}a^2b^6 \\
 &= \left(-\frac{2}{5}\right)\left(-\frac{1}{2}\right)(b^5)(ab^2) = \frac{1}{5}ab^7 \\
 &= \frac{1}{3}a^4b^4 + \frac{1}{8}a^3b^5 - \frac{5}{12}a^2b^6 + \frac{1}{5}ab^7
 \end{aligned}$$

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

$$x^6 + 3x^5 - 2x^4 - 2x^5 - 6x^4 + 4x^3 = 11x^4 - 53x^3 + 22x^2 + 3x^3$$

$$+ 9x^2 + 6x - 20x^2 - 60x - 40$$

$$= x^6 + x^5 - 19x^4 - 26x^3 + 11x^2 + 66x - 40$$

$$R = x^6 + x^5 - 19x^4 - 26x^3 + 11x^2 + 66x - 40$$

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

$$x^8 - x^7 + 3x^6 + 5x^6 - 5x^5 + 15x^4 + 3x^4 - 3x^3 + 9x^2 - 2x^3 + 2x^2 - 6x$$

$$= x^8 - x^7 + 8x^6 - 5x^5 + 18x^4 - 5x^3 + 11x^2 - 6x$$

$$R = x^8 - x^7 + 8x^6 - 5x^5 + 18x^4 - 5x^3 + 11x^2 - 6x$$

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

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

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

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