

Josmar flores Rodriguez Examen

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

$$\begin{aligned}
 2 & (-2a^3bc)(-4a^2b^2c^2)(5abc)(-6ab^2) \\
 & = -2a^7bc(-4b^2c^2)(5bc)(-6b^2) \\
 & = -2a^7b^6c(-4b^2)(5c)(-6) \\
 & = -2a^7b^6c^4(-4)(5)(-6) \\
 & = -2a^7b^6c^4(-4)(-30) \\
 & = -2a^7b^6c^4(120) \\
 & = -a^7b^6c^4(-2)(120) \\
 & = 240a^7b^6c^4
 \end{aligned}$$

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

$$\begin{aligned}
 4 & \left(\frac{2}{3}a^3b^2 - \frac{1}{4}a^2b^3 + \frac{5}{6}ab^4 - \frac{7}{5}b^5\right)\left(-\frac{1}{2}ab^2\right) \\
 & = \left(\frac{2}{3}\right)\left(-\frac{1}{2}\right)(a^3b^2)(ab^2) = \frac{1}{3}a^4b^4 \\
 & = \left(-\frac{1}{4}\right)\left(-\frac{1}{2}\right)(a^2b^3)(ab^2) = \frac{1}{8}a^3b^5 \\
 & = \left(\frac{5}{6}\right)\left(-\frac{1}{2}\right)(ab^4)(ab^2) = -\frac{5}{12}a^2b^6 \\
 & = \left(-\frac{7}{5}\right)\left(-\frac{1}{2}\right)(b^5)(ab^2) = \frac{7}{10}ab^7
 \end{aligned}$$

$$\begin{aligned}
 5 & (x^4-2x^3-11x^2+3x-20)(x^2+3x-2) \\
 & = x^6+3x^5-2x^4-2x^5-6x^4+4x^3-11x^4-33x^3+22x^2+3x^3 \\
 & \quad +9x^2+6x-20x^2-60x-40 \\
 & = x^6+x^5-19x^4-26x^3+11x^2-66x-40
 \end{aligned}$$

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

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

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

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

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

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