

$$\begin{array}{r}
 59 e) \quad 4x^4 - 2x^3 + 7x^2 - 2x + 3 \\
 \underline{- 4x^4 + 4x^3 + 8x^2} \\
 \quad / \quad 2x^3 + 15x^2 - 2x + 3 \\
 \quad \underline{- 2x^3 + 2x^2 + 4x} \\
 \quad \quad / \quad 17x^2 + 2x + 3 \\
 \quad \quad \underline{- 17x^2 + 17x + 34} \\
 \quad \quad \quad / \quad 19x + 37
 \end{array}$$

$$\begin{array}{r}
 \overline{) x^2 - x - 2} \\
 4x^2 + 2x + 17
 \end{array}$$

66c)

$$\begin{aligned}
 A &= [(x+5) \cdot (x+3)] - [(x-1) \cdot 2] = \\
 &= (x^2 + 3x + 5x + 15) - (2x - 2) = \\
 &= x^2 + 3x + 5x + 15 - 2x + 2 = x^2 + 6x + 17 \\
 \underline{\underline{A &= x^2 + 6x + 17}}
 \end{aligned}$$

73e) Dedicado a María Hacha.

$$\begin{aligned}
 \frac{(6x+8)^2}{27x^2-48} &= \frac{(6x+8)^2}{3(9x^2-16)} = \frac{(6x+8)^2}{3(3x+4)(3x-4)} = \\
 &= \frac{4(3x+4)^2}{3(3x+4)(3x-4)} = \frac{4(3x+4)}{3(3x-4)}
 \end{aligned}$$

Pag 84

$$47g) -5 + 20x = 95 \quad // \quad 20x = 95 + 5 \quad // \quad 20x = 100$$

$$x = \frac{100}{20} = \underline{\underline{5}}$$

Pag 85

$$50b) 2(x-17) = x - 3(12-2x)$$

$$2x - 34 = x - 36 + 6x$$

$$2x - x - 6x = -36 + 34$$

$$-5x = -2 \quad // \quad x = \frac{-2}{-5} = \frac{2}{5} \quad // \quad x = \underline{\underline{\frac{2}{5}}}$$

52b)

$$\frac{3x+15}{6} = -7 \quad // \quad 3x+15 = 6 \cdot (-7)$$

$$3x+15 = -42 \quad // \quad 3x = -42 - 15 \quad // \quad 3x = -57$$

$$x = \frac{-57}{3} = -19 \quad // \quad \underline{\underline{x = -19}}$$

$$53c) x - \frac{x+4}{5} = 1 + \frac{x}{2}$$

$$\frac{10x}{10} - \frac{2(x+4)}{10} = \frac{10}{10} + \frac{5x}{10}$$

$$10x - (2x+8) = 10 + 5x$$

$$10x - 2x - 8 = 10 + 5x$$

$$10x - 2x - 5x = 10 + 8$$

$$3x = 18 \quad // \quad x = \frac{18}{3} = 6 \quad // \quad \underline{\underline{x = 6}}$$

59b) $2x^2 - 4x + 13 = 0$

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a} = \frac{-(-4) \pm \sqrt{(-4)^2 - (4 \cdot 2 \cdot 13)}}{2 \cdot 2}$$

$$= \frac{4 \pm \sqrt{16 - 104}}{4} = \frac{4 \pm \sqrt{-88}}{4} = \text{No tiene Solución}$$

62a) $x^2 - 8 = 0 // x^2 + 0x - 8 = 0$

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a} = \frac{0 \pm \sqrt{0 - (4 \cdot 1 \cdot -8)}}{2 \cdot 1}$$

$$= \frac{\pm \sqrt{32}}{2} = \pm \sqrt{\frac{32}{4}} = \pm \sqrt{8} = \begin{cases} x_1 = +\sqrt{8} \\ x_2 = -\sqrt{8} \end{cases}$$

64a) $x^2 - 7x = 0$

$$x(x-7) = 0 \begin{cases} x_1 = 0 \\ x-7 = 0 \Rightarrow x_2 = 7 \end{cases}$$

67a) $(x+1)(x-3) + 3 = 0$

$x^2 - 3x + x - 3 + 3 = 0$

$x^2 - 2x = 0$

$$x(x-2) = \begin{cases} x_1 = 0 \\ (x-2) = 0 \Rightarrow \underline{\underline{x_2 = 2}} \end{cases}$$