

UNIDAD 6 – ECUACIONES

Lunes, 11 de mayo.

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$$5^x = 25 \rightarrow x = 2$$

$$(x-5)^2 = 4 \rightarrow x = 7 \text{ ó } x = 3$$

$$3^x = 81 \rightarrow x = 4$$

$$3^{x-1} = 81 \rightarrow x = 5$$

$$\sqrt{x+3} = 4 \rightarrow x = 13$$

$$x^x = 256 \rightarrow x = 4$$

$$x^5 = 400 \rightarrow x = 3'31\dots$$

Ecuaciones de primer grado.

$$5x + 3(1-x) = 12 + 2(x-5)$$

$$5x + 3 - 3x = 12 + 2x - 10$$

$$2x + 3 = 2 + 2x$$

$$2x - 2x = 2 - 3$$

$0 = -1$ Falso, la ecuación no tiene solución.

$$3x - 5[1 - 3(2x + 4)] = 3[1 - 4(x - 1)]$$

$$3x - 5[1 - 6x - 12] = 3[1 - 4x + 4]$$

$$3x - 5(-11 - 6x) = 3(5 - 4x)$$

$$3x + 55 + 30x = 15 - 12x$$

$$33x + 55 = 15 - 12x$$

$$33x + 12x = 15 - 55$$

$$35x = -40; \quad x = \frac{-40}{35} = \frac{-8}{7}$$

$$\frac{2x-3}{2} - \frac{x+3}{4} = \frac{x-1}{2}$$

$$\text{mín.cm.}\{2,4\} = 4$$

$$\frac{2(2x-3) - 1(x+3)}{4} = \frac{2(x-1)}{4}$$

$$2(2x-3) - 1(x+3) = 2(x-1)$$

$$4x - 6 - x - 3 = 2x - 2$$

$$3x - 9 = 2x - 2$$

$$3x - 2x = -2 + 9$$

$$x = 7$$

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$$4a) 5(x-1) - 6x + 2 = 3(1-x) - (1-3x)$$

$$5x - 5 - 6x + 2 = 3 - 3x - 1 + 3x$$

$$-x - 3 = 2$$

$$-x = 2 + 3; \quad -x = 5; \quad x = -5$$

5a)

$$\frac{1-2x}{9} = 1 - \frac{x+4}{6}$$

$$\text{mín.c.m}\{9,6\} = 18$$

$$\frac{2(1-2x)}{18} = \frac{18 \cdot 1 - 3(x+4)}{18}$$

$$2 - 4x = 18 - 3x - 12; \quad 2 - 4x = 6 - 3x; \quad -4x + 3x = 6 - 2; \quad -x = 4; \quad x = -4$$

5b) y 6a)