

### Actividad 500

$$1) -7x^2 + 14x + 21 = 0$$

$$\frac{-14 \pm \sqrt{14^2 - 4(-7)(21)}}{2(-7)}$$

$$\frac{-14 \pm \sqrt{196 + 588}}{-14}$$

$$\frac{-14 \pm \sqrt{784}}{-14}$$

$$\frac{-14}{-14} \pm \frac{28}{-14} \rightarrow \begin{matrix} -1 \\ 3 \end{matrix}$$

$$2) \quad 2x^2 - 14x + 24 = 0$$

$$\frac{-(-14) \pm \sqrt{(-14)^2 - 4(2)(+24)}}{2(2)}$$

$$\frac{14 \pm \sqrt{+196 - 192}}{4}$$

$$\frac{14 \pm \sqrt{4}}{4}$$

$$\frac{14 + 2}{4} \rightarrow 4$$

$$\frac{14 - 2}{4} \rightarrow 3$$

$$3) \quad -7x^2 + 63 = 0$$

$$\frac{63}{7} \quad x^2$$

$$x^2 - 9 = 0$$

$$x^2 = 9$$

$$x = \sqrt{9}$$

$$x = 3$$

+3

-3

$$4) x^2 - 7x - 4 = 0$$

$$\frac{-(-7) \pm \sqrt{(-7)^2 - 4(-1)(-4)}}{2(1)}$$

$$\frac{7 \pm \sqrt{49 + 16}}{2}$$

$$\frac{7 \pm \sqrt{65}}{2}$$

$$5) x^2 - 2x - 2 = 0$$

$$\frac{-(-2) \pm \sqrt{(-2)^2 - 4(1)(-2)}}{2(1)}$$

$$\frac{2 \pm \sqrt{4 + 8}}{2}$$

$$\frac{2 \pm \sqrt{12}}{2}$$

$$\frac{2 \pm 2\sqrt{3}}{2}$$

$$1 \pm \sqrt{3}$$

$$6) \quad 4x^2 - 24 = 0$$

$$\frac{-(-24) \pm \sqrt{(-24)^2 - 4(4)(0)}}{2(4)}$$

$$\frac{24 \pm \sqrt{576}}{8}$$

$$\frac{24}{4} = 6$$

$$x^2 = 6 = 0$$

$$x = 6$$

$$x = \sqrt{6}$$

$$\pm \sqrt{6}$$

$$7) 2x^2 - 6x = 4x - 3$$

$$2x^2 - 10x + 3 = 0$$

$$\frac{-(-10) \pm \sqrt{(-10)^2 - 4(2)(3)}}{2(2)}$$

$$\frac{10 \pm \sqrt{100 - 24}}{4}$$

$$\frac{10 \pm \sqrt{76}}{4}$$

$$\frac{10 \pm 2\sqrt{19}}{4}$$

$$\frac{2(5 \pm \sqrt{19})}{2}$$

$$\frac{5 \pm \sqrt{19}}{1}$$

$$8) -7x^2 + 4x + 14 = -6x^2$$

$$-8x^2 + 4x + 14 = 0$$

$$\frac{-4 \pm \sqrt{4^2 - 4(-8)(14)}}{2(-8)}$$

$$\frac{-4 \pm \sqrt{16 + 448}}{76}$$

$$\frac{-4 \pm \sqrt{464}}{-76}$$

$$\frac{-4 \pm 4\sqrt{29}}{-76}$$

$$\frac{4(-1 \pm \sqrt{29})}{76}$$

$$\frac{-7 \pm \sqrt{29}}{1}$$