## Resolver ecuaciones de segundo grado paso a paso

**1** Resuelve las siguientes ecuaciones poniendo en $x_1$ la solución menor y en $x_2$ la mayor:

a) $x^2 + 4x - 5 = 0$

$$\left.\begin{array}{l} a = \boxed{\phantom{0}} \\ b = \boxed{\phantom{0}} \\ c = \boxed{\phantom{0}} \end{array}\right\} \rightarrow x = \frac{-\boxed{\phantom{0}} \pm \sqrt{\boxed{\phantom{0}}^2 - 4 \cdot \boxed{\phantom{0}} \cdot \boxed{\phantom{0}}}}{2 \cdot \boxed{\phantom{0}}} = \frac{-\boxed{\phantom{0}} \pm \boxed{\phantom{0}}}{\boxed{\phantom{0}}} \begin{array}{l} x = \boxed{\phantom{0}} \\ x = \boxed{\phantom{0}} \end{array}$$

b) $2x^2 - 7x + 3 = 0$

$$\left.\begin{array}{l} a = \boxed{\phantom{0}} \\ b = \boxed{\phantom{0}} \\ c = \boxed{\phantom{0}} \end{array}\right\} \rightarrow x = \frac{-\boxed{\phantom{0}} \pm \sqrt{\boxed{\phantom{0}}^2 - 4 \cdot \boxed{\phantom{0}} \cdot \boxed{\phantom{0}}}}{2 \cdot \boxed{\phantom{0}}} = \frac{\boxed{\phantom{0}} \pm \boxed{\phantom{0}}}{\boxed{\phantom{0}}} \begin{array}{l} x = \boxed{\phantom{0}} \\ x = \dfrac{\boxed{\phantom{0}}}{\boxed{\phantom{0}}} \end{array}$$

c) $-x^2 + x + 6 = 0$

$$\left.\begin{array}{l} a = \boxed{\phantom{0}} \\ b = \boxed{\phantom{0}} \\ c = \boxed{\phantom{0}} \end{array}\right\} \rightarrow x = \frac{-\boxed{\phantom{0}} \pm \sqrt{\boxed{\phantom{0}}^2 - 4 \cdot \boxed{\phantom{0}} \cdot \boxed{\phantom{0}}}}{2 \cdot \boxed{\phantom{0}}} = \frac{-\boxed{\phantom{0}} \pm \boxed{\phantom{0}}}{-\boxed{\phantom{0}}} \begin{array}{l} x = \boxed{\phantom{0}} \\ x = \boxed{\phantom{0}} \end{array}$$

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

$$\left.\begin{array}{l} a = \boxed{\phantom{0}} \\ b = \boxed{\phantom{0}} \\ c = \boxed{\phantom{0}} \end{array}\right\} \rightarrow x = \frac{-\boxed{\phantom{0}} \pm \sqrt{\boxed{\phantom{0}}^2 - 4 \cdot \boxed{\phantom{0}} \cdot \boxed{\phantom{0}}}}{2 \cdot \boxed{\phantom{0}}} = \frac{\boxed{\phantom{0}} \pm \boxed{\phantom{0}}}{\boxed{\phantom{0}}} \begin{array}{l} x = \boxed{\phantom{0}} \\ x = -\dfrac{\boxed{\phantom{0}}}{\boxed{\phantom{0}}} \end{array}$$

e) $x^2 - 10x + 25 = 0$

$$\left.\begin{array}{l} a = \boxed{\phantom{0}} \\ b = \boxed{\phantom{0}} \\ c = \boxed{\phantom{0}} \end{array}\right\} \rightarrow x = \frac{-\boxed{\phantom{0}} \pm \sqrt{\boxed{\phantom{0}}^2 - 4 \cdot \boxed{\phantom{0}} \cdot \boxed{\phantom{0}}}}{2 \cdot \boxed{\phantom{0}}} = \frac{\boxed{\phantom{0}} \pm \boxed{\phantom{0}}}{\boxed{\phantom{0}}} = \boxed{\phantom{0}}$$

f) $x^2 - x + 2 = 0$

$$\left.\begin{array}{l} a = \boxed{\phantom{0}} \\ b = \boxed{\phantom{0}} \\ c = \boxed{\phantom{0}} \end{array}\right\} \rightarrow x = \frac{-\boxed{\phantom{0}} \pm \sqrt{\boxed{\phantom{0}}^2 - 4 \cdot \boxed{\phantom{0}} \cdot \boxed{\phantom{0}}}}{2 \cdot \boxed{\phantom{0}}} = \frac{\boxed{\phantom{0}} \pm \sqrt{-\boxed{\phantom{0}}}}{\boxed{\phantom{0}}} = \boxed{\phantom{0000000}}$$

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**2** Completa el siguiente cuadro poniendo en $x_1$ la solución menor y en $x_2$ la mayor:

|  | $a$ | $b$ | $c$ | ¿TIENE SOLUCIÓN? | $x_1$ | $x_2$ |
|---|---|---|---|---|---|---|
| $5x^2 - 8x = 0$ |  |  |  |  |  |  |
| $x^2 - 64 = 0$ |  |  |  |  |  |  |
| $x^2 - 3x + 4 = 0$ |  |  |  |  |  |  |
| $4x^2 + x - 3 = 0$ |  |  |  |  |  |  |