

$$1.- \quad x^2 - 5x + 6 = 0$$

$$x = \frac{5 \pm \sqrt{(-5)^2 - 4 \cdot 1 \cdot 6}}{2 \cdot 1}$$

$$= \frac{5 \pm \sqrt{25 - 24}}{2} = \frac{5 \pm \sqrt{1}}{2} = \frac{5 \pm 1}{2}$$

$$\begin{cases} \frac{5+1}{2} = \frac{6}{2} = 3 \\ \frac{5-1}{2} = \frac{4}{2} = 2 \end{cases}$$

$$2.- \quad x^2 + x - 6 = 0$$

$$x = \frac{-1 \pm \sqrt{1^2 - 4 \cdot 1 \cdot (-6)}}{2}$$

$$= \frac{-1 \pm \sqrt{1 + 24}}{2} = \frac{-1 \pm \sqrt{25}}{2}$$

$$= \frac{-1 \pm 5}{2} = \begin{cases} \frac{-1+5}{2} = \frac{4}{2} = 2 \\ \frac{-1-5}{2} = \frac{-6}{2} = -3 \end{cases}$$

$$3.- \quad x^2 + 2x + 1 = 0$$

$$x = \frac{-2 \pm \sqrt{4 - 4}}{2} = \frac{-2 \pm 0}{2}$$

$$\begin{cases} \frac{-2+0}{2} = -1 \\ \frac{-2-0}{2} = -1 \end{cases}$$

$$5.- \quad 2x^2 - 7x + 3 = 0$$

$$x = \frac{7 \pm \sqrt{49 - 4 \cdot 2 \cdot 3}}{4}$$

$$= \frac{7 \pm \sqrt{49 - 24}}{4} = \frac{7 \pm \sqrt{25}}{4}$$

$$= \frac{7 \pm 5}{4} = \begin{cases} \frac{7+5}{4} = \frac{12}{4} = 3 \\ \frac{7-5}{4} = \frac{2}{4} = \frac{1}{2} \end{cases}$$

$$4.- \quad x^2 + x + 1 = 0$$

$$x = \frac{-1 \pm \sqrt{1 - 4}}{2}$$

$$= \frac{-1 \pm \sqrt{-3}}{2} \rightarrow \text{No tiene solución real}$$

No hay raíz negativa

$$6.- \quad x^2 - 5x - 84 = 0$$

$$x = \frac{5 \pm \sqrt{25 - 4 \cdot 1 \cdot (-84)}}{2}$$

$$= \frac{5 \pm \sqrt{25 + 336}}{2} = \frac{5 \pm \sqrt{361}}{2}$$

$$= \frac{5 \pm 19}{2} = \begin{cases} \frac{5+19}{2} = 12 \\ \frac{5-19}{2} = -7 \end{cases}$$