

① Να λύσεις τις εξισώσεις i) $x^2 - 7x - 3 = 0$ ii) $x^2 - 3x = 0$

iii) $x^2 - 4 = 0$

iv) $x^2 + 7 = 0$

Λύση

i) $x^2 - 7x - 3 = 0$

$$\Delta = b^2 - 4ac$$

$$\Delta = (-7)^2 - 4 \cdot 1 \cdot (-3) = 49 + 12 = 61.$$

ii) $x^2 - 3x = 0$

$$p_{1,2} = \frac{-b \pm \sqrt{\Delta}}{2a} = \frac{7 \pm \sqrt{61}}{2} \begin{cases} p_1 = \frac{7 + \sqrt{61}}{2} \\ p_2 = \frac{7 - \sqrt{61}}{2} \end{cases}$$

$$x(x-3) = 0$$

$$x = 0 \quad \vee \quad x - 3 = 0 \\ x = 3$$

iii) $x^2 - 4 = 0$

$$x^2 = 4$$

$$x = \pm \sqrt{4}$$

$$x = \pm 2$$

iv) $x^2 + 7 = 0$

$$x^2 = -7$$

Αδύνατη.