

Β ΛΥΚΕΙΟΥ ΑΛΓΕΒΡΑ

16.7 1)

$$\alpha) 2\eta\mu x - 1 = 0 \Rightarrow 2\eta\mu x = 1 \Rightarrow \eta\mu x = \frac{1}{2} \Rightarrow \eta\mu x = \eta\mu \frac{\pi}{6} \Rightarrow x = 2\kappa\pi + \frac{\pi}{6} \quad \text{ή} \quad x = 2\kappa\pi + \pi - \frac{\pi}{6}, \quad \kappa \in \mathbb{Z}$$

$$\beta) 3\varepsilon\varphi x + \sqrt{3} = 0 \Rightarrow \varepsilon\varphi x = -\frac{\sqrt{3}}{3} \Rightarrow \varepsilon\varphi x = -\varepsilon\varphi \frac{\pi}{6} \Rightarrow \varepsilon\varphi x = \varepsilon\varphi \left(-\frac{\pi}{6}\right) \Rightarrow x = \kappa\pi - \frac{\pi}{6}, \quad \kappa \in \mathbb{Z}$$

$$\gamma) \sqrt{2}\sigma\upsilon\nu x + 1 = 0 \Rightarrow \sigma\upsilon\nu x = -\frac{1}{\sqrt{2}} \Rightarrow \sigma\upsilon\nu x = -\frac{\sqrt{2}}{2} \Rightarrow \sigma\upsilon\nu x = -\sigma\upsilon\nu \frac{\pi}{4} \Rightarrow \sigma\upsilon\nu x = \sigma\upsilon\nu \left(\pi - \frac{\pi}{4}\right) \Rightarrow \\ \Rightarrow \sigma\upsilon\nu x = \sigma\upsilon\nu \frac{3\pi}{4} \Rightarrow x = 2\kappa\pi \pm \frac{3\pi}{4}, \quad \kappa \in \mathbb{Z}$$

16.7 2)

$$2\eta\mu x - \sqrt{3} = 0 \Rightarrow 2\eta\mu x = \sqrt{3} \Rightarrow \eta\mu x = \frac{\sqrt{3}}{2} \Rightarrow \eta\mu x = \eta\mu \frac{\pi}{3} \Rightarrow x = 2\kappa\pi + \frac{\pi}{3} \quad \text{ή} \quad x = 2\kappa\pi + \pi - \frac{\pi}{3}, \quad \kappa \in \mathbb{Z}$$

16.7 3)

$$2\sigma\upsilon\nu x - 1 = 0 \Rightarrow 2\sigma\upsilon\nu x = 1 \Rightarrow \sigma\upsilon\nu x = \frac{1}{2} \Rightarrow \sigma\upsilon\nu x = \frac{\pi}{3} \Rightarrow x = 2\kappa\pi \pm \frac{\pi}{3}, \quad \kappa \in \mathbb{Z}$$

16.7 4)

$$\sigma\varphi x + 1 = 0 \Rightarrow \sigma\varphi x = -1 \Rightarrow \sigma\varphi x = -\sigma\varphi \frac{\pi}{4} \Rightarrow \sigma\varphi x = \sigma\varphi \left(-\frac{\pi}{4}\right) \Rightarrow x = \kappa\pi - \frac{\pi}{4}, \quad \kappa \in \mathbb{Z}$$

16.7 5)

$$\varepsilon\varphi x + \sqrt{3} = 0 \Rightarrow \varepsilon\varphi x = -\sqrt{3} \Rightarrow \varepsilon\varphi x = -\varepsilon\varphi \frac{\pi}{3} \Rightarrow \varepsilon\varphi x = \varepsilon\varphi \left(-\frac{\pi}{3}\right) \Rightarrow x = \kappa\pi - \frac{\pi}{3}, \quad \kappa \in \mathbb{Z}$$

16.7 6)

$$\sqrt{3}\sigma\varphi x - 1 = 0 \Rightarrow \sqrt{3}\sigma\varphi x = 1 \Rightarrow \sigma\varphi x = \frac{\sqrt{3}}{3} \Rightarrow \sigma\varphi x = \sigma\varphi \frac{\pi}{3} \Rightarrow x = \kappa\pi + \frac{\pi}{3}, \quad \kappa \in \mathbb{Z}$$

16.7 7)

$$\sqrt{2}\eta\mu x + 1 = 0 \Rightarrow \sqrt{2}\eta\mu x = -1 \Rightarrow \eta\mu x = -\frac{\sqrt{2}}{2} \Rightarrow \eta\mu x = -\eta\mu \frac{\pi}{4} \Rightarrow \eta\mu x = \eta\mu \left(-\frac{\pi}{4}\right) \Rightarrow \\ \Rightarrow x = 2\kappa\pi - \frac{\pi}{4} \quad \text{ή} \quad x = 2\kappa\pi + \pi + \frac{\pi}{4}, \quad \kappa \in \mathbb{Z}$$

16.7 8)

$$\sqrt{3}\varepsilon\varphi x - 1 = 0 \Rightarrow \sqrt{3}\varepsilon\varphi x = 1 \Rightarrow \varepsilon\varphi x = \frac{\sqrt{3}}{3} \Rightarrow \varepsilon\varphi x = \varepsilon\varphi \frac{\pi}{6} \Rightarrow x = \kappa\pi + \frac{\pi}{6}, \quad \kappa \in \mathbb{Z}$$

16.7 9)

$$2\sqrt{3}\sigma\upsilon\nu x + 3 = 0 \Rightarrow 2\sqrt{3}\sigma\upsilon\nu x = -3 \Rightarrow \sigma\upsilon\nu x = -\frac{\sqrt{3}}{3} \Rightarrow \sigma\upsilon\nu x = -\sigma\upsilon\nu \frac{\pi}{6} \Rightarrow \sigma\upsilon\nu x = \sigma\upsilon\nu \left(\pi - \frac{\pi}{6}\right) \Rightarrow \\ \Rightarrow \sigma\upsilon\nu x = \sigma\upsilon\nu \left(\frac{5\pi}{6}\right) \Rightarrow x = 2\kappa\pi \pm \frac{5\pi}{6}, \quad \kappa \in \mathbb{Z}$$