

αυ. 6 / Σελ. 88 /

ii) $(2\cos x + 1) \cdot (\varepsilon\varphi^2 x - 3) \cdot \sigma\varphi x = 0 \iff$

$2\cos x + 1 = 0 \iff \eta \quad \varepsilon\varphi^2 x - 3 = 0 \quad \eta \quad \sigma\varphi x = 0$

$2\cos x = -1 \iff \varepsilon\varphi^2 x = 3 \iff$

$\cos x = -\frac{1}{2} \iff \varepsilon\varphi x = \pm\sqrt{3}$

$\cos x = -\cos \frac{\pi}{3} \iff \varepsilon\varphi x = \sqrt{3} \quad \eta \quad \varepsilon\varphi x = -\sqrt{3} \iff$

$\cos x = \cos \left(\pi - \frac{\pi}{3} \right) = \cos \frac{2\pi}{3} \iff$

$x = 2k\pi \pm \frac{2\pi}{3}$

$k \in \mathbb{Z}$

Δεχτείς

$\varepsilon\varphi x = \varepsilon\varphi \frac{\pi}{3}$

$x = k\pi + \frac{\pi}{3} \quad \Delta\epsilon\chi\tau\epsilon\varsigma$

Περιορισμοί:

$\cos x \neq 0 \iff x \neq k\pi + \frac{\pi}{2} \quad k \in \mathbb{Z}$

$\sin x \neq 0 \iff x \neq k\pi$

Σκέψεις: Αφού $\cos x \neq 0 \implies \sin x \neq \pm 1$

Αφού $\sin x \neq 0 \implies \cos x \neq \pm 1$

$\sigma\varphi x = 0$

Απορρίπτεται

δίνου $\cos x \neq 0$.

anw. 11 / 2 ε λ 88

$$i) m\mu^2 x + 56\omega^2 x = 4 \iff$$

$$1 - 5\omega^2 x + 56\omega^2 x = 4$$

$$\Leftrightarrow 1 + 4\omega^2 x = 4 \quad \omega x = \frac{\sqrt{3}}{2}$$

$$\Leftrightarrow 4\omega^2 x = 3$$

$$\Leftrightarrow \omega^2 x = \frac{3}{4}$$

$$\Leftrightarrow \omega x = \pm \frac{\sqrt{3}}{2}$$

$$\omega x = -\frac{\sqrt{3}}{2}$$

Абн.5 - Б'ом / $\Sigma \epsilon \lambda$ 89

$$\{ \varphi x = G \varphi \left(\frac{n}{3} + x \right),$$

$$\frac{1}{G \varphi x} = G \varphi \left(\frac{n}{3} + x \right)$$

?

2m n p o 6 n q 9 n 2

$$G \varphi \left(\frac{n}{2} - x \right) = G \varphi \left(\frac{n}{3} + x \right)$$

$$\frac{n}{2} - x = kn + \frac{n}{3} + x \Leftrightarrow$$

$$-x - x = kn + \frac{n}{3} - \frac{n}{2} \Leftrightarrow$$

$$-2x = kn - \frac{n}{6} \Leftrightarrow$$

$$2x = kn + \frac{n}{6} \Leftrightarrow x = \frac{kn}{2} + \frac{n}{12} \quad k \in \mathbb{Z}$$

Περίοδος:

$$x \in [0, 2\pi)$$

$$G \omega x \neq 0 \Leftrightarrow x \neq kn + \frac{n}{2}$$

$$\sin \left(\frac{n}{3} + x \right) \neq 0 \Leftrightarrow \frac{n}{3} + x \neq kn \Leftrightarrow$$

$$x \neq kn - \frac{n}{3}$$

$k \in \mathbb{Z}$

Πως "συρίγει" ~ $\{ \varphi \} \{ \varphi \} \{ \varphi \}$.

1ος

$$\{ \varphi x = \frac{1}{G \varphi x}$$

2ος

$$\{ \varphi x = G \varphi \left(\frac{n}{2} - x \right)$$

k
-k

$$0 \leq x < 2\pi \Leftrightarrow$$

$$0 \leq \frac{kn}{2} + \frac{n}{12} < 2\pi \Leftrightarrow$$

$$-\frac{n}{12} \leq \frac{kn}{2} + \frac{n}{12} - \frac{n}{12} < 2\pi - \frac{n}{12} \Leftrightarrow$$

$$-\frac{n}{12} < \frac{kn}{2} < \frac{23n}{12}$$

$$-\frac{1}{12} \cdot 2 < 2 \frac{k}{2} < 2 \cdot \frac{23}{12}$$

$$-\frac{1}{6} < k < \frac{23}{6}$$

$$k \in \mathbb{Z} \Rightarrow k = 0, 1, 2, 3$$

$$\Gamma_{1a} \quad k=0 \Rightarrow X = \frac{k\pi}{2} + \frac{\pi}{12} = 0 + \frac{\pi}{12} = \frac{\pi}{12}$$

$$k=1 \Rightarrow X = \frac{\pi}{2} + \frac{\pi}{12}$$

$$k=2 \Rightarrow X = \frac{2\pi}{2} + \frac{\pi}{12} = \pi + \frac{\pi}{12}$$

$$k=3 \Rightarrow X = \frac{3\pi}{2} + \frac{\pi}{12}$$

Aktuelles

Σελ. 89 BOM

Λβν. 1, 2, 3

Σελ. 88

Λβν 10 (ii)

Λβν. 11 (ii)