

Αν $6 \in \mu_1 \alpha$ $\varepsilon \zeta$ $6 \omega \omega \omega$ $\nu \eta \alpha \rho \chi \varepsilon \iota$ $\varepsilon \varphi X = \frac{\eta \mu X}{6 \omega X}$. $6 \omega X \neq 0 (\Rightarrow) X \neq kn + \frac{n}{2}$

$$(3 \varepsilon \varphi X - \sqrt{3})(\eta \mu X - 1) \cdot (26 \omega X + 1) = 0 \quad . \quad \text{Τρέπει } 6 \omega X \neq 0$$

$$3 \varepsilon \varphi X - \sqrt{3} = 0$$

$$\eta \mu X - 1 = 0 \quad \eta \quad 26 \omega X + 1 = 0$$

$$3 \varepsilon \varphi X = \sqrt{3}$$

$$\eta \mu X = 1 \quad (\times)$$

$$26 \omega X = -1$$

$$\varepsilon \varphi X = \frac{\sqrt{3}}{3}$$

$$\omega X = -\frac{1}{2}$$

$$\text{Αν } \eta \mu X = 1 \quad \text{τότε } \alpha \nu \alpha$$

$$\eta \mu^2 X + 6 \omega^2 X = 1 \quad (=1)$$

$$1 + 6 \omega^2 X = 1 \quad (=1)$$

$$6 \omega^2 X = 0 \quad (=1) \quad \omega X = 0$$

ΑGu. 6 / Σελ. 88

$$ii) (26\omega x + 1) \cdot (\psi^2 x - 3) \cdot 64x = 0$$

$$26\omega x + 1 = 0 \quad \vee \quad \psi^2 x - 3 = 0 \quad \vee \quad 64x = 0$$

$$26\omega x = -1 \Rightarrow$$

$$\omega x = -\frac{1}{2} \Leftrightarrow$$

$$6\omega x = -6\omega \frac{n}{3} \Leftrightarrow$$

$$6\omega x = 6\omega \left(n - \frac{n}{3}\right) \Rightarrow$$

$$6\omega x = 6\omega \frac{2n}{3} \Leftrightarrow$$

$$x = 2kn \pm \frac{2n}{3} \quad k \in \mathbb{Z}$$

$$\psi^2 x = 3 \Leftrightarrow$$

$$\psi x = \sqrt{3} \quad \vee \quad \psi x = -\sqrt{3} \Leftrightarrow$$

$$\psi x = \psi \frac{n}{3} \Leftrightarrow$$

$$x = kn + \frac{n}{3}$$

$$k \in \mathbb{Z}$$

$$\psi x = -\psi \frac{n}{3} \Leftrightarrow$$

$$\psi x = \psi \left(-\frac{n}{3}\right) \Leftrightarrow$$

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

$$k \in \mathbb{Z}$$

Περιορισμοί:

$$6\omega x \neq 0 \Leftrightarrow x \neq kn + \frac{n}{2}$$

$$64x \neq 0 \Leftrightarrow x \neq kn$$

$$k \in \mathbb{Z}$$

$$\frac{6\omega x}{64x} = 0 \Leftrightarrow$$

$$6\omega x = 0$$

Άρα

2ος περιορισμός

$$64x = 64 \frac{n}{2} \Leftrightarrow$$

$$x = kn + \frac{n}{2}$$

Εξισώσεις με 2 διαφορετικούς περιωνοειδείς αριθμούς.

Δ6ν.11 / Σελ 88

$$(i) \quad n\mu^2 x + 56\omega^2 x = 4 \quad (\Rightarrow)$$

$$n\mu^2 x + 5(1 - n\mu^2 x) = 4 \quad (\Rightarrow)$$

$$n\mu^2 x + 5 - 5n\mu^2 x = 4 \quad (\Rightarrow)$$

$$-4n\mu^2 x = 4 - 5 \quad (\Rightarrow)$$

$$-4n\mu^2 x = -1 \quad (\Rightarrow)$$

$$n\mu^2 x = \frac{1}{4} \quad (\Leftrightarrow)$$

$$n\mu x = \pm \frac{1}{2}$$

$$n\mu x = \frac{1}{2} \quad \text{ή} \quad n\mu x = -\frac{1}{2}$$

Δ6ν.1 - Β'ΟΜ / Σελ 89

$$(i) \quad n\mu x + 6\omega \left(\frac{n}{4} - x \right) = 0 \quad (\Rightarrow)$$

$$n\mu x + n\mu \left[\frac{n}{2} - \left(\frac{n}{4} - x \right) \right] = 0$$

$$n\mu x + n\mu \left(\frac{n}{2} - \frac{n}{4} + x \right) = 0 \quad (\Rightarrow)$$

$$n\mu x + n\mu \left(\frac{n}{4} + x \right) = 0 \quad (\Rightarrow)$$

$$n\mu x = -n\mu \left(\frac{n}{4} + x \right) \quad (\Rightarrow) \quad n\mu x = n\mu \left(-\frac{n}{4} - x \right) \quad (\Rightarrow)$$

$$\underline{X = 2k\pi - \frac{n}{4} - x} \quad \text{ή} \quad X = 2k\pi + \pi - \left(-\frac{n}{4} - x \right)$$

$$X = 2kn - \frac{n}{4} - X \Leftrightarrow$$

$$X + X = 2kn - \frac{n}{4} \Leftrightarrow$$

$$2X = 2kn - \frac{n}{4} \Leftrightarrow$$

$$\frac{2X}{2} = kn - \frac{n}{4}$$

Ans. 1, 2, 3, 5 / $\Sigma 89$