

Ukr. 612

Q

9

$$K = PKT$$

②

$$\rightarrow n = kR - \frac{\pi}{14}$$

1.0

$$u = \frac{k\pi}{r} - \frac{\pi}{\lambda}$$

③

9

$$\mu = k\pi + \frac{\pi}{f}$$

$$\cos^2 n - \sin^2 n \cos^2 n = 1 \Rightarrow \sin^2 n \cos^2 n = 0 \Rightarrow \sin n = 0 \Rightarrow n = k\pi$$

$$\Rightarrow -\sin^2 n \cos^2 n = 1 - \cos^2 n \Rightarrow \frac{1 - \cos^2 n}{\sin^2 n} \Rightarrow \begin{cases} \textcircled{1} \sin^2 n = 0 \Rightarrow \sin n = 0 \Rightarrow n = k\pi \\ \textcircled{2} \cos^2 n = 1 \end{cases}$$

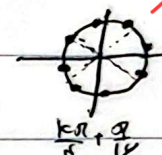
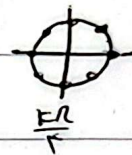
$$\Rightarrow n = k\pi + \pi \Rightarrow n = \frac{Yk\pi}{Y} + \pi$$

$$\frac{\pi}{Y} + \pi, \frac{\Delta\pi}{Y}$$

$\begin{matrix} \textcircled{1} \textcircled{2} \\ k=0 \checkmark & k=1 \checkmark \\ n=0 & n=\pi \end{matrix}$
 $\begin{matrix} k=1 \checkmark & k=2 \checkmark \\ n=\pi & n=2\pi \end{matrix}$

$$\tan\left(\frac{\pi}{Y} - n\right) = \frac{\tan \frac{\pi}{Y} - \tan n}{1 + \tan \frac{\pi}{Y} \tan n} = \frac{1 - \tan n}{1 + \tan n} \Rightarrow \tan\left(\frac{\pi}{Y} - n\right) = \tan n$$

$$\Rightarrow n = k\pi + \frac{\pi}{Y} - n \Rightarrow n = k\pi + \frac{\pi}{Y} \Rightarrow n = \frac{k\pi}{Y} + \frac{\pi}{Y}$$



به این روش می توانیم به جواب دیگر هم برسیم

$$\sqrt{1 + \sin n} = \sqrt{Y} \cos n \Rightarrow \sqrt{(n + \cos n)^2} = \sqrt{Y} \cos n \Rightarrow \sqrt{Y} \cos n \pm \sqrt{n + \cos n} = \sqrt{Y} \cos n$$

$$\Rightarrow \sqrt{Y} \left| \cos\left(n + \frac{\pi}{Y}\right) \right| = \sqrt{Y} \cos n \Rightarrow \left| \cos\left(n + \frac{\pi}{Y}\right) \right| = \cos n \Rightarrow \begin{cases} \textcircled{1} \cos\left(n + \frac{\pi}{Y}\right) = \cos n \\ \textcircled{2} \cos\left(n - \frac{\pi}{Y}\right) = -\cos n \end{cases}$$

$$\cos\left(\frac{\pi}{Y} - n\right) = \cos\left(n - \frac{\pi}{Y}\right)$$

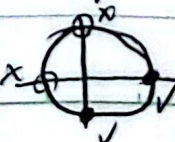
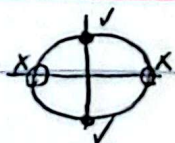
$$\textcircled{2} \cos\left(n - \frac{\pi}{Y}\right) = -\cos n$$

$$\Rightarrow \begin{cases} \textcircled{1} \Rightarrow \begin{cases} n = Yk\pi + \frac{\pi}{Y} \\ n = Yk\pi - \frac{\pi}{Y} \end{cases} \\ \textcircled{2} \Rightarrow \begin{cases} n = Yk\pi + \frac{\pi}{Y} \\ n = Yk\pi - \frac{\pi}{Y} \end{cases} \end{cases}$$

$$\textcircled{1} \Rightarrow \begin{cases} \cos\left(n - \frac{\pi}{Y}\right) = -\cos n = \cos(\pi - n) \Rightarrow \begin{cases} n - \frac{\pi}{Y} = Yk\pi + \pi - n \Rightarrow n = Yk\pi + \frac{\pi}{Y} \\ n - \frac{\pi}{Y} = Yk\pi + \pi - n \Rightarrow n = Yk\pi - \frac{\pi}{Y} \end{cases} \end{cases}$$

$$\textcircled{1} \Rightarrow \cos^2 n - \cos^2 n = 1$$

$$\textcircled{2} \Rightarrow \sin^2 n - \cos^2 n = 1$$



$$\Rightarrow n = k\pi + \frac{\pi}{Y}$$

$$\Rightarrow n = k\pi - \frac{\pi}{Y}$$

$$\Rightarrow n = k\pi$$

$$\Rightarrow n = k\pi + \frac{\pi}{Y}$$