

املا فيوتيا

$$\Lambda \cos x + \tan^m x = 1 \rightarrow \Lambda \cos x + 1 + \tan^m x = \Lambda \cos x + \frac{1}{\cos^m x} \quad .1$$

$$\xrightarrow{\cos^m x} \Lambda \cos^m x + 1 = \cos^m x + \frac{1}{\Lambda} \rightarrow \cos x = \frac{1}{\Lambda} \rightarrow \left. \begin{array}{l} \frac{\pi}{\Lambda} \\ \frac{0\pi}{\Lambda} \end{array} \right\} \text{جواب}$$

$$0 \sin^2 x + \Lambda \cos^2 x = -\Lambda \quad \sin^2 x = 1 - \cos^2 x / \cos^2 x + \Lambda \cos^2 x \quad .2$$

$$0 = 0 \cos^2 x + \Lambda \cos^2 x - \Lambda \cos^2 x = -\Lambda \quad \Lambda \cos^2 x = 0 \cos^2 x - \Lambda \cos^2 x + \Lambda \cos^2 x = 0$$

$$0 \rightarrow \Lambda = 0 - \Lambda + \Lambda = 0 \neq 0$$

$$\rightarrow \frac{\pi}{\Lambda} \rightarrow \Lambda \neq 0$$

$$\rightarrow \pi = -\Lambda = 0 + \Lambda + \Lambda = 0 \checkmark \quad \rightarrow \pi \text{ و } -\pi : \text{جواب}$$

$$\rightarrow -\frac{\pi}{\Lambda} \rightarrow \Lambda \neq 0$$

$$\rightarrow -\pi \rightarrow -\Lambda = 0 + \Lambda + \Lambda = 0 \checkmark$$

$$\sin x (\underbrace{\Lambda \cos^m x + 1}_{1 - \Lambda \sin^2 x}) = 1 \rightarrow \Lambda \sin x = \Lambda \sin^2 x + \sin x = 1 \quad .3$$

$$\Lambda \sin x - \Lambda \sin^2 x = 1 \rightarrow \sin^2 x = 1 \rightarrow x = \frac{\pi}{2} + k\pi \rightarrow x = \frac{\pi}{2} + \frac{\pi}{2}$$

$$\left. \begin{array}{l} \frac{\pi}{2} \\ \frac{0\pi}{2} \\ \frac{3\pi}{2} = \frac{3\pi}{2} \end{array} \right\} \text{جواب}$$

$$\sin\left(\frac{\pi+2\pi}{p}\right) = \sin\left(\frac{\pi}{p} + \frac{\pi}{p}\right) = \cos \frac{\pi}{p}$$

ملاحظة

$$\sin\left(\frac{\pi+2\pi}{p}\right) = \cos\left(\frac{\pi+2\pi}{p}\right) = \cos \frac{\pi}{p} + \frac{1}{p} \sin \frac{\pi}{p}$$

$$\cos\left(\frac{\pi+2\pi}{p}\right) = \cos\left(\frac{\pi}{p} + \frac{\pi}{p}\right) = \sin \frac{\pi}{p} - \frac{1}{p} \sin \frac{\pi}{p} \cos \frac{\pi}{p}$$

$$\frac{1}{\cos \frac{\pi}{p}} \left(\frac{p \sin \frac{\pi}{p} - 1}{p \sin \frac{\pi}{p}} \right) = 0$$

$$\sin \frac{\pi}{p} = \frac{1}{p} \rightarrow \begin{matrix} \frac{\pi}{p} = \frac{\pi}{4} \rightarrow \frac{\pi}{1p} \rightarrow \frac{0\pi}{1p} = \frac{\pi}{1p} = \frac{\pi}{2} \\ \frac{\pi}{p} = \frac{3\pi}{4} \rightarrow \frac{\pi}{1p} \rightarrow \frac{0\pi}{1p} = \frac{\pi}{1p} = \frac{\pi}{2} \end{matrix}$$

$$\tan \frac{\pi}{4} = \tan \frac{\pi}{p} = \sqrt{p}$$

$$m(\cos \alpha - \sin \alpha) = \sqrt{4} \sin(\frac{\pi}{p}) \cdot \sqrt{4}$$

$$\cos \alpha - \sin \alpha = (\sin \alpha - \cos \alpha) = \sqrt{p} \sin\left(\alpha - \frac{\pi}{p}\right) = \sqrt{p} \sin\left(\frac{\pi}{p} - \alpha\right)$$

$$= \sqrt{p} \cos\left(\frac{\pi}{p} + \alpha\right) = \sqrt{p} \times \frac{1}{\sqrt{p}} = \frac{\sqrt{p}}{\sqrt{p}}$$

$$\cos\left(\alpha + \frac{\pi}{p}\right) = \frac{1}{\sqrt{p}} \quad \cos \alpha = \frac{1}{\sqrt{p}} \rightarrow \cos \alpha = \frac{1}{\sqrt{p}} \rightarrow \cos^2 \alpha = \frac{1}{p} \rightarrow \cos \alpha = \frac{1}{\sqrt{p}} = \frac{1}{\sqrt{p}}$$

$$\rightarrow \cos\left(\frac{\pi}{p} + \frac{\pi}{p}\right) = \frac{1}{\sqrt{p}} \rightarrow \sin \frac{\pi}{p} = \frac{1}{\sqrt{p}} \rightarrow \sin \frac{\pi}{p} = \frac{1}{\sqrt{p}}$$

$$m \times \frac{\sqrt{p}}{\sqrt{p}} = \sqrt{4} \times \frac{1}{\sqrt{p}} = \sqrt{4} \rightarrow m \times \frac{\sqrt{p}}{\sqrt{p}} = \sqrt{4}$$

$$\frac{m \sqrt{4}}{p} = \sqrt{4} \rightarrow m \sqrt{4} = 4 \sqrt{4} \rightarrow m = 4$$

$$\sin\left(x + \frac{\pi}{4}\right) \cos\left(x - \frac{\pi}{4}\right) = 1 \rightarrow \cos\left(x - \frac{\pi}{4}\right) = 1 \quad .4$$

$$\cos\left(x - \frac{\pi}{4}\right) = \frac{1}{2} \rightarrow x - \frac{\pi}{4} = \frac{\pi}{3} \rightarrow x = \frac{\pi}{3} + \frac{\pi}{4} = \frac{7\pi}{12}$$

$$\left. \begin{array}{l} x = \frac{\pi}{3} \\ x = \frac{5\pi}{3} \end{array} \right\} \rightarrow \frac{1}{2}$$

$$\sin x + \sqrt{2} \cos x + \sqrt{2} \rightarrow \sin x + \frac{1}{\sqrt{2}} + \cos x + \frac{\sqrt{2}}{2} = \frac{\sqrt{2}}{2} \quad .5$$

$$\sin x + \cos \frac{\pi}{4} + \cos x \sin \frac{\pi}{4} = \sin \frac{\pi}{4}$$

$$\sin\left(x + \frac{\pi}{4}\right) = \sin\left(\frac{\pi}{4}\right)$$

$$\left. \begin{array}{l} x + \frac{\pi}{4} = \frac{\pi}{4} \rightarrow x = 0 \\ x + \frac{\pi}{4} = \pi - \frac{\pi}{4} \rightarrow x = \frac{3\pi}{4} \end{array} \right\} \rightarrow \frac{\pi}{4}, \frac{3\pi}{4}$$

$$\rightarrow \frac{-\pi}{12} + \frac{\pi}{12} + \frac{0\pi}{12} = \frac{0\pi}{12} = \frac{0\pi}{12}$$

$$\rightarrow \frac{-\pi}{12} + \frac{\pi}{12} + \frac{0\pi}{12} = \frac{0\pi}{12} = \frac{0\pi}{12}$$

$$\text{فمن } \sin\left(\frac{\pi}{4} - x\right) = 1 \rightarrow -\sin x \cos \frac{\pi}{4} = 1 \rightarrow -\sin x = 1 \quad .6$$

$$\underbrace{-\cos x}$$

$$\sin x = -\frac{1}{2}$$

$$\sin x = \sin \frac{\pi}{6} \rightarrow x = \frac{\pi}{6} \rightarrow x = \frac{\pi}{6} + \frac{\pi}{4} = \frac{5\pi}{12}$$

$$\left. \begin{array}{l} x = \frac{\pi}{6} \\ x = \frac{5\pi}{6} \end{array} \right\} \rightarrow \frac{\pi}{6}, \frac{5\pi}{6}$$

$$\left. \begin{array}{l} x = \frac{11\pi}{12} \\ x = \frac{19\pi}{12} \end{array} \right\} \rightarrow \frac{11\pi}{12} + \frac{\pi}{12} + \frac{0\pi}{12} = \frac{12\pi}{12} = \pi$$

$$\rightarrow \frac{11\pi}{12} + \frac{\pi}{12} + \frac{0\pi}{12} = \frac{12\pi}{12} = \pi$$

