

$$\Lambda \cos \alpha = 1 + \tan^2 \alpha \quad \Lambda \cos \alpha = \frac{1}{\cos^2 \alpha} \quad \Lambda \cos^2 \alpha = 1 \quad \Lambda \cos \alpha = 1$$

$$\cos \alpha = \frac{1}{\Lambda} \quad \alpha = \arccos \left(\frac{1}{\Lambda} \right) \quad \alpha = \arccos \left(\frac{1}{\Lambda} \right)$$

$$\frac{\pi}{\Lambda} \quad \frac{\omega \pi}{\Lambda} \rightarrow \text{جواب}$$

$$\omega \sin^2 \alpha = -\Lambda (\cos^2 \alpha + 1) \quad \omega \sin^2 \alpha = -\Lambda \cos^2 \left(\frac{\pi}{\Lambda} \right)$$

$$\omega \sin^2 \left(\frac{\pi}{\Lambda} \right) + \Lambda \cos^2 \left(\frac{\pi}{\Lambda} \right) = 0$$

$$\omega \sin^2 \left(\frac{\pi}{\Lambda} \right) = 0 \quad \sin^2 \alpha = 0 \quad \sin \alpha = 0 \quad \alpha = K\pi$$

$$\Lambda \cos^2 \left(\frac{\pi}{\Lambda} \right) = 0 \quad \cos^2 \alpha = 0 \quad \frac{\pi}{\Lambda} = K\pi + \frac{\pi}{2} \quad \alpha = \frac{K\pi}{\Lambda} + \frac{\pi}{2}$$

$$\text{جواب} = 0, \pi, 2\pi, \frac{\pi}{\Lambda}, \frac{\omega \pi}{\Lambda} \rightarrow \text{جواب باید اشتراک بگیریم}$$

$$\Lambda \sin \alpha, (1 - \Lambda \sin^2 \alpha) + \sin \alpha = 1 \quad \Lambda \sin \alpha - \Lambda \sin^2 \alpha + \sin \alpha = 1$$

$$\Lambda \sin \alpha - \Lambda \sin^2 \alpha = 1 \quad \sin^2 \alpha = 1 \quad \Lambda \sin \alpha = 1 \quad \alpha = \frac{K\pi}{\Lambda} + \frac{\pi}{2}$$

$$\text{جواب} \rightarrow \frac{\pi}{\Lambda} + \frac{\omega \pi}{\Lambda} + \frac{4\pi}{4} = \frac{\omega \pi}{4} = \frac{\omega \pi}{\Lambda}$$

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

$$\sin \alpha = \frac{1}{\Lambda} \quad \alpha = \arcsin \left(\frac{1}{\Lambda} \right) \quad \alpha = \arcsin \left(\frac{1}{\Lambda} \right)$$

$$\alpha = K\pi + \frac{\pi}{\Lambda} \quad \frac{\pi}{\Lambda}, \frac{11\pi}{\Lambda}$$

$$\frac{11\pi}{\Lambda} - \frac{\pi}{\Lambda} = \frac{10\pi}{\Lambda} = \frac{\omega \pi}{4} \quad \tan \left(\frac{\omega \pi}{4} \times \frac{1}{\Lambda} \right) = \tan \left(\frac{\omega \pi}{\Lambda} \right) = -\sqrt{\Lambda}$$

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

$$\sin \alpha = 1 - (\cos \alpha - \sin \alpha) \quad \frac{\sqrt{\Lambda}}{\Lambda} m - \sqrt{\Lambda} \left(\frac{1}{\Lambda} \right) = \sqrt{\Lambda}$$

$$\frac{\sqrt{\Lambda}}{\Lambda} m = \sqrt{\Lambda} \quad m = \Lambda$$

$$\frac{\sin\left(\alpha - \frac{\pi}{p} + \frac{\pi}{p}\right)}{\cos\left(\alpha - \frac{\pi}{p}\right)} = 1 \quad \cos\left(\alpha - \frac{\pi}{p}\right) = \pm 1 \quad -4$$

$$\alpha = k\pi + \frac{\pi}{p}$$

$$\alpha - \frac{\pi}{p} = k\pi \quad \text{or} \quad \left\{ \frac{\pi}{p}, \frac{2\pi}{p} \right\} \quad \textcircled{P}$$

$$\sin \alpha + \frac{\sin \alpha_0}{\sin \alpha_0} \cos \alpha = \frac{\sin \alpha \cos \alpha_0 + \sin \alpha_0 \cos \alpha}{\cos \alpha_0} = \sin(\alpha_0 + \alpha) = \sqrt{p} \quad -\checkmark$$

$$\sin(\alpha_0 + \alpha) = \sqrt{p} \quad \frac{\pi}{p} + \alpha = k\pi + \frac{\pi}{p} \rightarrow \alpha = k\pi - \frac{\pi}{p} \quad \textcircled{P}$$

$$\frac{\pi}{p} + \alpha = k\pi + \pi - \frac{\pi}{p} \quad \alpha = k\pi + \frac{2\pi}{p} \quad -\frac{\pi}{p} + \frac{p\pi}{p} + \frac{2\pi}{p}$$

$$\sin \alpha (-\cos \alpha) = 1$$

$$-\sin \alpha = 1 \quad \sin \alpha = -\frac{1}{p} \quad -1$$

$$0 \leq \alpha < \pi \rightarrow 0 \leq \alpha < \pi \quad \alpha = \frac{\pi}{p} + \frac{11\pi}{4} + \pi + \frac{11\pi}{4} + \pi = 6\pi$$

$$\alpha = 6\pi$$

$$(\cos \alpha) (\cos \alpha) (\cos \alpha) = \frac{1}{p} \quad -4$$

$$|\cos \alpha \cos \alpha \cos \alpha| = \frac{1}{p} \quad \frac{|\sin \alpha|}{|\sin \alpha|} \times |\cos \alpha \cos \alpha \cos \alpha|$$

$$\frac{1}{p} \sin \alpha = \frac{1}{p} |\sin \alpha| = |\sin \alpha|$$

$$\alpha = k\pi + \pi - \frac{\pi}{p} \quad \alpha = k\pi + \frac{\pi}{p}$$

$$\sin \alpha = \sin \alpha \rightarrow \alpha = k\pi + \frac{\pi}{p} \quad \alpha = k\pi - \frac{\pi}{p} \quad \sin \alpha = -\sin \alpha = \sin(\pi - \alpha)$$

$$\alpha = k\pi + \pi + \frac{\pi}{p} \quad \alpha = k\pi + \frac{\pi}{p} \quad \alpha = k\pi + \frac{\pi}{p}$$

$$\tan(\alpha) = \frac{1}{\tan \alpha} = \cot \alpha = \tan\left(\frac{\pi}{p} - \alpha\right) \quad \alpha = k\pi + \frac{\pi}{p} - \alpha \quad -10$$

$$\alpha = k\pi + \frac{\pi}{p} \quad \alpha = k\pi + \frac{\pi}{p}$$

$$\frac{\pi}{p} + \frac{\pi}{p} + \frac{11\pi}{4} + \frac{11\pi}{4} + \frac{11\pi}{4} = 9\pi$$

$$\cos u = 2 \cos^2 \frac{u}{2} - 1 \quad (\text{فرمول ضای})$$

- (2)

$$\Delta \sin^2 u + 2(2 \cos^2 \frac{u}{2} - 1) = -2 \rightarrow \Delta \sin^2 u + 4 \cos^2 \frac{u}{2} - 2 = -2$$

حاصل جمع دو عدد نامنفی صفر است پس هر دو صفر بوده اند!

$$\Delta \sin^2 u = 0 \rightarrow \sin u = 0 \rightarrow u = k\pi \xrightarrow{-\pi \leq u \leq \pi} u = \pi \cup -\pi \cup 0$$

$$2 \cos^2 \frac{u}{2} = 0 \rightarrow \cos \frac{u}{2} = 0 \rightarrow \frac{u}{2} = k\pi + \frac{\pi}{2} \rightarrow u = \frac{2k\pi + \pi}{1}$$

$$\xrightarrow{-\pi \leq u \leq \pi} u = -\pi \leq -\frac{\pi}{2} \leq \frac{\pi}{2} \leq \pi$$

انتخاب دو مجموعه جواب $[-\pi, \pi]$ است