

$$\sin\left(\frac{\pi}{r} + rm\right) = -\cos\left(\frac{\pi}{r} + rm\right) \rightarrow \cos rm = \sin rm \quad (14)$$

صورتی نامی کے ساتھ مندرجہ ہے

$$\sin rm - \cos rm = 0 \rightarrow r \sin rm \cos rm - \cos rm = 0 \rightarrow \cos rm (r \sin rm - 1) = 0$$

$$\cos rm = 0 \quad \text{جوہر}$$

$$\sin rm = \frac{1}{r} \rightarrow rm = \frac{\pi}{4}, \frac{3\pi}{4} \rightarrow m = \frac{\pi}{12}, \frac{5\pi}{12} \quad \text{اوقات} \quad \frac{7\pi}{12} = \frac{\pi}{3}$$

$$\tan \frac{\pi}{r} = -\sqrt{3}$$

$$\cos\left(m + \frac{\pi}{r}\right) = \cos m \times \frac{\sqrt{2}}{r} - \sin m \times \frac{\sqrt{2}}{r} = \frac{\sqrt{2}}{r} (\cos m - \sin m) = \frac{1}{\sqrt{3}} \quad (15)$$

$$\rightarrow \cos m - \sin m = \frac{\sqrt{2}}{r} \quad \text{جوہر} \quad 1 - \frac{r \sin m \cos m}{\sin rm} = \frac{r}{r} \rightarrow \sin rm = \frac{1}{r}$$

$$\text{جوہر} : m \frac{\sqrt{2}}{\sqrt{3}} = 3\sqrt{4} \times \frac{1}{3} = \sqrt{4} \rightarrow m = 4$$

$$\sin\left(m + \frac{\pi}{r}\right) \cos\left(\frac{\pi}{r} - m\right) = 1 \quad \text{جوہر} \quad \sin\left(m + \frac{\pi}{r}\right) = 1 \quad (16)$$

$$\sin\left(m + \frac{\pi}{r}\right) = +1 \rightarrow m + \frac{\pi}{r} = k\pi + \frac{\pi}{r} \rightarrow m = k\pi + \frac{\pi}{r} \quad \text{جوہر}$$

جوہر

$$\sin m + \frac{\sin \frac{\pi}{r}}{\cos \frac{\pi}{r}} \cos m = \sqrt{2} \rightarrow \frac{\sin m \cos \frac{\pi}{r} + \sin \frac{\pi}{r} \cos m}{\cos \frac{\pi}{r}} = \sqrt{2} \quad (17)$$

$$\sin\left(m + \frac{\pi}{r}\right) = \frac{\sqrt{2}}{r} \rightarrow m + \frac{\pi}{r} = 2k\pi + \frac{\pi}{r}, \quad 2k\pi + \frac{3\pi}{r}$$

$$m = -\frac{\pi}{12}, \frac{23\pi}{12}, \frac{5\pi}{12} \quad \text{جوہر} \quad \frac{9\pi}{4}$$

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Subject:

$$\leftarrow \sin x - \cos x = 1 \rightarrow -\sqrt{2} \sin \left(x - \frac{\pi}{4}\right) = 1 \rightarrow \sin \left(x - \frac{\pi}{4}\right) = -\frac{1}{\sqrt{2}} \quad (8)$$

$$\left. \begin{aligned} x &= k\pi - \frac{\pi}{4} \\ x &= k\pi + \frac{3\pi}{4} \end{aligned} \right\} \frac{11\pi}{12}, \frac{5\pi}{12}, \frac{13\pi}{12}, \frac{17\pi}{12} = \Delta \pi$$

$$(1 + \cos 2\alpha)(1 + \cos 4\alpha)(1 + \cos 8\alpha) = \frac{1}{\Delta} \quad (9)$$

$$\sqrt{2} \cos^2 \alpha \times \sqrt{2} \cos^2 2\alpha \times \sqrt{2} \cos^2 4\alpha = \frac{1}{\Delta}$$

$$\cos^2 \alpha \times \cos^2 2\alpha \times \cos^2 4\alpha = \frac{1}{\sqrt{2}} \xrightarrow{\Delta} \cos \alpha \cos 2\alpha \cos 4\alpha = \pm \frac{1}{\Delta}$$

$$\xrightarrow{\sin \alpha \neq 0} \frac{\sin \alpha}{\sin \alpha} \times \cos \alpha \times \cos 2\alpha \times \cos 4\alpha = \frac{1}{\Delta} \sin 8\alpha = \pm \frac{1}{\Delta} \sin \alpha$$

 $\sin \alpha \neq 0$

$$\rightarrow \sin 8\alpha = \pm \sin \alpha \rightarrow \alpha = \frac{\sqrt{2}\pi}{\Delta} \quad \alpha = \frac{\sqrt{2}\pi}{9}$$

$$\alpha = \frac{\sqrt{2}\pi}{\Delta} + \frac{\pi}{\Delta} \quad \alpha = \frac{\sqrt{2}\pi}{9} + \frac{\pi}{9} \quad \text{برای } \Delta = \frac{11\pi}{9}$$

(10)

$$\tan \psi_m = \frac{1}{\tan \alpha} \rightarrow \tan \psi_m = \cot(\alpha) \rightarrow \tan \psi_m = \tan\left(\frac{\pi}{2} - \alpha\right)$$

$$\psi_m = k\pi + \frac{\pi}{2} - \alpha \rightarrow \psi_m = k\pi + \frac{\pi}{2} \rightarrow \alpha = \frac{k\pi}{2} + \frac{\pi}{2}$$

$$\alpha = \frac{9\pi}{2}, \frac{11\pi}{2}, \frac{13\pi}{2}, \frac{15\pi}{2} \quad \text{مجموعه} \rightarrow 4\pi$$