

۱- $27^\circ = (x) \text{ rad}$ $\frac{27^\circ}{180^\circ} = \frac{x}{\pi}$ $\rightarrow \frac{27\pi}{180} = x$

۲- $125^\circ = (x) \text{ rad}$ $\frac{125^\circ}{180^\circ} = \frac{x}{\pi}$ $\rightarrow \frac{125\pi}{180} = x$

۳- $\frac{5\pi}{14} \text{ rad} = (x)^\circ$ $\frac{\frac{5\pi}{14}}{\pi} = \frac{x}{180}$ $\rightarrow \frac{5}{14} = \frac{x}{180}$ $\rightarrow x = 125^\circ$

۴- $\frac{\pi}{9} \text{ rad} = (x)^\circ$ $\frac{\frac{\pi}{9}}{\pi} = \frac{x}{180}$ $\rightarrow \frac{1}{9} = \frac{x}{180}$ $\rightarrow x = 20^\circ$

۵- $\left[\frac{(100^\circ)}{\left(\frac{125\alpha}{9}\right) G} - \frac{\frac{125\alpha}{9}}{\frac{100}{1}} \right] = \frac{125\alpha}{100} = \frac{5\alpha}{4} = \frac{D - (14, 5\alpha)^\circ}{180}$

۶- $\frac{\alpha\pi}{\lambda} \text{ rad} = \frac{\alpha}{\lambda} = \frac{D}{180}$ $\rightarrow (14, 5\alpha)^\circ$

۷- $\alpha(10 + 125\omega + 125\omega) = 180^\circ$ $\rightarrow \alpha = 1^\circ$

۸- $\cos 40^\circ \cdot \cos 30^\circ - \sin 40^\circ \cdot \sin 30^\circ = \cos 70^\circ$ $\rightarrow \frac{1}{2} \cdot \frac{\sqrt{3}}{2} - \frac{1}{2} \cdot \frac{1}{2} = \frac{\sqrt{3}-1}{4}$

۹- $\frac{\tan^2 30^\circ + \tan^2 40^\circ + \tan^2 50^\circ}{\cot^2 30^\circ - \cot^2 40^\circ} = \frac{\frac{1}{3} + 1 + 3}{\sqrt{3} - 1} = \frac{\frac{4}{3}}{\sqrt{3} - 1}$

۱۰- $\frac{1}{\sqrt{3}} \times \frac{\sqrt{3}}{1} = \frac{1}{1}$

۱۱- $-\sin 30^\circ \cdot \cos 40^\circ + \cos 30^\circ \cdot \sin 40^\circ = \sin \theta$

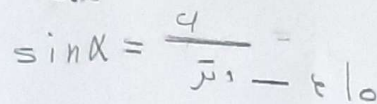
۱۲- $\frac{-1}{2} \times \frac{1}{2} = -\frac{1}{4}$ $\frac{\sqrt{3}}{2} \times \frac{\sqrt{3}}{2} = \frac{3}{4}$ $\frac{3-1}{4} = \frac{2}{4} = \frac{1}{2}$

۱۳- $\sin \theta = \frac{1}{2}$ $\theta = 30^\circ$

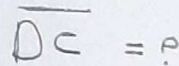
5

- ✓

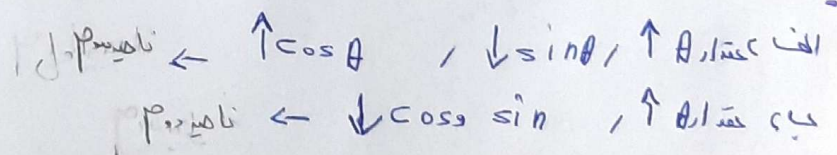
-A



$$9 + V + 10 + V + 1 = 31$$



$$\begin{aligned} 100 - V\omega &= P\omega - r\omega = \overline{AB} \\ \cos 60^\circ &= \frac{\sqrt{4}}{4} = \frac{\overline{AB}}{\overline{AC}} \Rightarrow \overline{AC} = \frac{10}{\sqrt{3}} = \frac{10\sqrt{3}}{3} \\ \sin 60^\circ &= \frac{\sqrt{3}}{4} = \frac{\overline{BC}}{\overline{AC}} \Rightarrow \overline{BC} = \frac{10}{2} = 5 \end{aligned}$$



$$\sin x = p$$

