

۲۰ عالی نوشتار!

نام و نام خانوادگی: پایتخته نامه تشریحی تکلیف شماره ۱۲... کلاس ۱۵A.....

$$\frac{12\omega}{110} = \frac{R_{ad}}{r}$$

$$x = \frac{12\omega r}{110} \approx 0.109 \text{ rad}$$

$$2V^0 = x \text{ rad}$$

$$\frac{D}{110} = \frac{R_{ad}}{r}$$

$$\frac{2V}{110} = \frac{R_{ad}}{r}$$

$$2x = 0.109 \text{ rad}$$

$$\frac{f r_0}{9} \text{ rad} = x^0 \quad \frac{f r_0}{9} = \frac{x}{110}$$

$$\frac{x}{9} = \frac{x}{110} \quad x = 110^0 \checkmark$$

$$\frac{2r}{110} = \frac{\omega 12r}{110} \quad \omega = \frac{2}{12} = \frac{1}{6}$$

$$2r = V \omega^0 \checkmark$$

$$\frac{a x}{\pi} = \frac{x}{110} \quad x = \frac{110 a}{\pi} = \frac{f \omega a}{\pi} \checkmark$$

$$\frac{12\omega a}{110} = \frac{2}{110} \quad x = \frac{12\omega a}{2} \checkmark$$

$$\frac{10a}{r} + \frac{f \omega a}{r} + \frac{r \omega a}{r} = 110 \quad \frac{9.6a}{r} = 110 \quad f \omega a = 110$$

$$a = 5 \checkmark$$

$$\cos 50^0 \cdot \cos 30^0 - \sin 50^0 \sin 30^0 = \frac{1}{2} \quad \tan 50^0 + \frac{r \cot 50^0}{r} = 1 \quad (2)$$

$$\frac{\tan 50^0 + \tan 30^0 + \tan 20^0}{\cot 50^0 - \cot 30^0} = \frac{1}{\sqrt{3}} + 1 + \frac{1}{\sqrt{3}} = \frac{2}{\sqrt{3} - \sqrt{3}} = \frac{2}{\sqrt{3} - \sqrt{3}} = \frac{1}{\sqrt{3}} \checkmark$$

$$-\sin 30^0 \cos 50^0 + \cos 30^0 \sin 50^0 = \sin^2 \theta$$

$$-\frac{1}{2} \times \frac{1}{2} + \frac{\sqrt{3}}{2} \times \frac{\sqrt{3}}{2} = \sin^2 \theta$$

$$-\frac{1}{4} + \frac{3}{4} = \sin^2 \theta \quad \frac{1}{2} = \sin^2 \theta \quad \sin \theta = \sqrt{\frac{1}{2}} = \frac{\sqrt{2}}{2}$$

$$\theta = 45^0 \quad \tan 45^0 = 1 \checkmark$$

$$\frac{r \tan 30^0 (1 - \tan 50^0)}{(1 - \cot 20^0)} = r \tan 30^0 = r \times \frac{\sqrt{3}}{3} = \frac{r \sqrt{3}}{3}$$

$$\tan \theta = \sqrt{3}$$

$$\theta = 60^0 \quad \frac{y_0}{110} = \frac{R_{ad}}{r}$$

$$R_{ad} = \frac{\pi}{r} \checkmark$$

$$\tan \gamma + 1 = \frac{1}{\cos \gamma} \quad \gamma + 1 = \frac{1}{\cos \gamma} \quad \cos \gamma = \frac{1}{\gamma} \quad \cos \gamma = \frac{\sqrt{\gamma}}{\gamma}$$

$$\sin = \tan \times \cos \quad \sin = \frac{\omega \times \sqrt{\gamma}}{\gamma}$$

$$\frac{\gamma \times \omega \sqrt{\gamma}}{\gamma} = \frac{\sqrt{\gamma}}{\gamma} = \frac{1 \times \sqrt{\gamma}}{\gamma} = 1 \quad \checkmark$$

$$\sin \alpha = \frac{\gamma}{10} \rightarrow \frac{\gamma}{AB} = \frac{\gamma}{10} \quad AB = 1$$

$$\gamma_T \times \gamma = 10 \quad \gamma = \sqrt{\gamma} \quad \gamma = 1$$

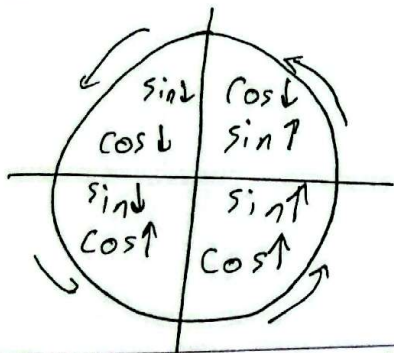
$$1 + \gamma + \gamma + 10 + \gamma = 14 \quad \checkmark$$

$$DC \Rightarrow \sin \gamma_0 = \frac{\sqrt{\gamma}}{\gamma} \quad \sin \gamma_0 \rightarrow \frac{BD}{10} = \frac{\sqrt{\gamma}}{\gamma} \quad BD = \omega \sqrt{\gamma}$$

$$\cos \gamma_0 = \frac{1}{\gamma} \Rightarrow \cos \gamma_0 \rightarrow \frac{AB}{10} = \frac{1}{\gamma} \quad AB = \omega$$

$$\tan \gamma = 1 \Rightarrow \tan \gamma \rightarrow \frac{BC}{\omega} = 1 \quad BC = \omega$$

$$BD - BC = \omega \sqrt{\gamma} - \omega = \omega (\sqrt{\gamma} - 1)$$



$\checkmark$ $\gamma = 1$ (الف)

$\checkmark$ $\gamma = 1$ (ب)

$$\tan \gamma + 1 = \frac{1}{\cos \gamma} \quad \left(\frac{1}{\gamma}\right) + 1 = \frac{1}{\cos \gamma} \quad \cos \gamma = \frac{9}{10}$$

$$\cos \gamma + \sin \gamma = 1 \quad \frac{9}{10} + \sin \gamma = 1$$

$$\sin \gamma = \frac{1}{10} \quad \sin = \sqrt{\frac{1}{10}} \rightarrow \sin \gamma = \frac{\sqrt{10}}{10} \quad \checkmark$$