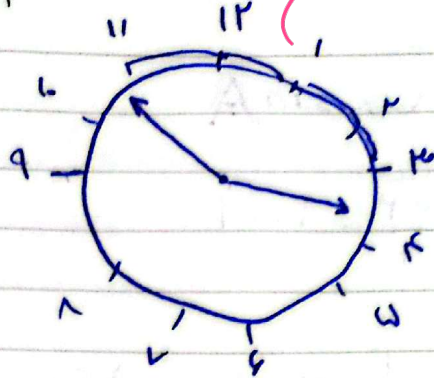




☆ ۲۰ آفرین

دیانا دهن خواہ



۱- الف (ب)

$$K \times M = 12$$

$$\Delta K = 2 = 2V$$

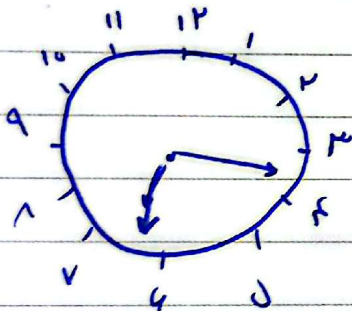
$$1 \times 4 = 4$$

$$12 + 2V + 4 = 18$$

$$\alpha = |5, \Delta M - 3 \cdot H|$$

$$\alpha = |5, 5 \times 5K - 3 \cdot 3| = 2 \cdot V$$

$$34 - 2 \cdot V = 18$$



$$2 \times 3 = 6$$

$$11 \div 2 = 9$$

$$2 \times 4 = 8$$

$$9 + 12 + 9 = 30$$

۲- الف (ب)

$$\alpha = |3 \cdot H - 5, \Delta M|$$

$$|3 \cdot 4 - 5, 5 \times 11| \rightarrow 11 \rightarrow \alpha = 11$$

$$\frac{\alpha}{2} R^2 \rightarrow \frac{\pi}{4} \times 10^2 \rightarrow \frac{\pi}{4} \times \frac{1}{2} = \frac{\pi}{8}$$

۳- الف (ب)

$$\frac{\pi}{13} \times 9 = \frac{9\pi}{13} = \frac{3\pi}{4}$$

$$\alpha R + 2R = \frac{\pi}{4} \times 1 + 2 \times 3 \rightarrow \frac{\pi}{4} + 6$$

(ب)

$$S = \frac{1}{2} \times AB \times BC \times \sin A$$

الف. ۳

$$\frac{1}{2} \times 1 \times \omega \times \frac{\sqrt{3}}{2} = 1 \cdot \sqrt{3}$$

$$BC^2 = AB^2 + AC^2 - 2 \times AB \times AC \times \cos A =$$

ب. ۱۰

$$BC^2 = 2\omega + 4 - 2 \times \omega \times 1 \times \frac{1}{2} = 4\omega - \omega = 3\omega$$

$$BC^2 = 3\omega$$

$$BC = \sqrt{3\omega} \quad P = \omega + 1 + \sqrt{3\omega} = 2$$

$$B + C = 180^\circ$$

$$BC = 1\omega$$

$$AC = 1\omega\sqrt{2}$$

$$A = 30^\circ = \frac{\pi}{6}$$

$$\frac{a}{\sin A} = \frac{b}{\sin B} \rightarrow \frac{1\omega}{\sin 30^\circ} = \frac{1\omega\sqrt{2}}{\sin B} \rightarrow B = 45^\circ = \frac{\pi}{4}$$

$$C = 105^\circ = \frac{7\pi}{12}$$

ج. ۲

$$\tan(\pi - \alpha) = -\tan \alpha$$

$$\tan(\pi + \alpha) = \tan \alpha$$

$$\tan(2\pi - \alpha) = -\tan \alpha$$

$$\tan(2\pi + \alpha) = \tan \alpha$$

$$(-\tan \alpha) + 3 \tan \alpha = 2 \tan \alpha$$

$$-\tan \alpha - \tan \alpha = -2 \tan \alpha$$

$$\Rightarrow \frac{2 \tan \alpha}{-2 \tan \alpha} = -1$$

$$\frac{\pi}{12} = 15^\circ \quad \alpha = \tan 15^\circ$$

$$75^\circ = 90^\circ - 15^\circ \quad \tan(75^\circ - 15^\circ) = \cot 15^\circ = \frac{1}{\alpha}$$

$$105^\circ = 90^\circ + 15^\circ \quad \tan(75^\circ + 15^\circ) = -\cot 15^\circ = -\frac{1}{\alpha}$$

$$145^\circ = 180^\circ - 35^\circ \quad \tan(180^\circ - 35^\circ) = -\tan 35^\circ = -\alpha$$

$$225^\circ = 180^\circ + 45^\circ \quad \tan(180^\circ + 45^\circ) = \tan 45^\circ = 1$$

$$\frac{2(\frac{1}{\alpha}) + (-\frac{1}{\alpha})}{3(-\alpha) - \frac{1}{\alpha}} = \frac{\frac{1}{\alpha}}{-3\alpha - \frac{1}{\alpha}} \rightarrow \frac{1}{-3\alpha^2 - 1}$$

$$A = \sin + \cos$$

$$B = \sin - \cos$$

$$\frac{A}{B} + \frac{B}{A} = \mu$$

$$\frac{A^2 + B^2}{AB} = \mu$$

$$A^2 = \sin^2 + \cos^2 + 2\sin\cos$$

$$B^2 = \sin^2 + \cos^2 - 2\sin\cos$$

$$A^2 + B^2 = 2(\sin^2 + \cos^2) = 2$$

$$\frac{2}{\sin^2 - \cos^2} = \mu$$

$$\sin^2 - \cos^2 = \frac{2}{\mu}$$

$$\cos^2 (\tan^2 - 1) = \frac{2}{\mu}$$

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

$$\frac{\tan^2 - 1}{1 + \tan^2} = \frac{2}{\mu}$$

$$\tan^2 = t$$

$$\frac{t-1}{1+t} = \frac{2}{\mu} \rightarrow \mu t - \mu = 2t + 2$$

$$t = \omega$$

$$\tan^2 x = \omega$$

5 Sep. 2022

دوشنبه

۱۴۴۴ صفر ۸

$$\frac{1 - \cos^r + r \cos^r + 1}{1 - \cos^r + r \cos^r - 1} = \frac{-r \cos^r + 2}{\cos^r - 1} = -r$$

$$-r \cos^r + r = r \cos^r \quad \cos^r = \frac{r}{V}$$

$$\sin^r + \frac{r}{V} = 1 \rightarrow \sin^r = \frac{Q}{V}$$

$$\tan^r = \frac{Q}{V} \times \frac{V}{r} = \frac{Q}{r}$$

$$\cos \frac{r}{p} \omega = \cos \frac{r}{p} \omega = \frac{\sqrt{1 + \cos r \omega}}{p} = \frac{\sqrt{2 + \sqrt{2}}}{p} \quad -1.$$

$$\sin \frac{r}{p} \omega = \sin(r - \frac{r}{p} \omega) = \cos \frac{r}{p} \omega = \frac{\sqrt{2 + \sqrt{2}}}{p}$$