

دھرم راتران

تکلیف 19

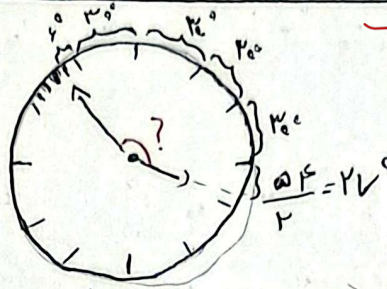
عسل رمضان 20

$$\alpha = |\omega / \omega_m - 30 \text{ h}|$$

(ب)

$$= \left| \frac{\omega \omega}{10} \times 3 = 30 \times 3 \right| = |90 - 90| = 0$$

$$340 - 207 = 133$$

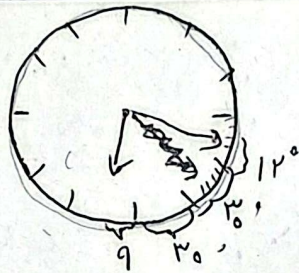


الف) $30 + 30 + 30 + 30 + 27 + 6 = 153$

$$\alpha = \left| \frac{\omega \omega}{10} \times 11 - 30 \times 5 \right|$$

(ب)

$$= |99 - 150| = 51$$

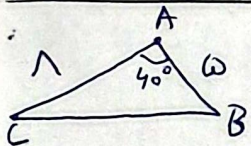


الف) $30 + 30 + 12 + 9 = 81$

$$P = \alpha R + 2R = \frac{\pi}{9} \times 3 + 6 = \frac{\pi}{3} + 6$$

(ب)

الف) $S = \frac{\alpha}{\gamma} R^2 = \frac{\pi}{9} \times \frac{1}{9} \times 9 = \frac{\pi}{9}$

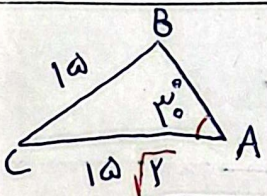


$$CB = \sqrt{b^2 + c^2 - 2bc \cos A} = \sqrt{4^2 + 5^2 - 2 \times 4 \times 5 \cos 40^\circ} = \sqrt{17}$$

الف) $S = \frac{1}{2} \times AB \times AC \times \sin A = 10\sqrt{3}$

$$V + 1 + \omega = 20$$

(ب)



$$\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C} \Rightarrow \frac{10}{\sin A} = \frac{10\sqrt{3}}{\sin B} \Rightarrow \sin B = \frac{\sqrt{3}}{2} \Rightarrow B = 60^\circ = \frac{\pi}{3}$$

$$B + C = 100^\circ \Rightarrow A = 30^\circ \quad C = 100^\circ = \frac{5\pi}{9}$$

$$\frac{\tan(\pi - \alpha) + r \tan(\pi + \alpha)}{\tan(r\pi - \alpha) - \tan(r\pi + \alpha)} = \frac{-\tan \alpha + r \tan \alpha}{-\tan \alpha - \tan \alpha} = \frac{r \tan \alpha}{-2 \tan \alpha} = -1$$

9

$$\frac{r \tan 70^\circ + \tan 10^\circ}{r \tan 190^\circ - \tan 70^\circ} = \frac{r \tan(90^\circ - 10^\circ) + \tan(90^\circ + 10^\circ)}{r \tan(180^\circ - 10^\circ) - \tan(70^\circ - 10^\circ)} = \frac{r \cot 10^\circ - \cot 10^\circ}{-r \tan 10^\circ - \cot 10^\circ}$$

$$= \frac{\frac{1}{a}}{-ra + \frac{1}{a}} = \frac{-1}{ra + 1}$$

$$\frac{\pi}{12} = 10^\circ \Rightarrow \tan 10^\circ = a \Rightarrow \cot 10^\circ = \frac{1}{a}$$

$$\frac{\sin x + \cos x}{\sin x - \cos x} \div \cos x + \frac{\sin x - \cos x}{\sin x + \cos x} \div \cos x = \frac{\tan x + 1}{\tan x - 1} + \frac{\tan x - 1}{\tan x + 1} = p$$

$$\frac{p \tan^2 x + p}{\tan^2 x - 1} = p \Rightarrow p \tan^2 x + p = p \tan^2 x - p \Rightarrow \tan^2 x = \omega$$

$$\frac{\sin^2 x - \cos^2 x + 1}{\sin^2 x + \cos^2 x - 1} = p \Rightarrow \frac{\sin^2 x - \cos^2 x + \cos^2 x + \sin^2 x}{\sin^2 x + \cos^2 x - \cos^2 x - \sin^2 x} = \frac{p \sin^2 x - \cos^2 x}{\cos^2 x} \div \cos^2 x$$

$$= \frac{p \tan^2 x - 1}{1} = p \Rightarrow p \tan^2 x = \omega \Rightarrow \boxed{\tan^2 x = p, \omega}$$

الف) $\cos 2p, \omega \rightarrow \cos^2 \alpha = \frac{1 + \cos^2 \alpha}{p} \rightarrow \cos^2 2p, \omega = \frac{1 + \cos^2 \omega}{p} = \frac{1 + \frac{\sqrt{p}}{p}}{p} = \frac{p + \sqrt{p}}{p}$
 $\Rightarrow \cos 2p, \omega = \frac{\sqrt{p + \sqrt{p}}}{p}$

ب) $\sin 4p, \omega \rightarrow \sin^2 \alpha = \frac{1 - \cos^2 \alpha}{p} \rightarrow \sin^2 4p, \omega = \frac{1 - \cos^2 \omega}{p} = \frac{1 + \frac{\sqrt{p}}{p}}{p}$
 $\Rightarrow \frac{p + \sqrt{p}}{p} \Rightarrow \sin 4p, \omega = \frac{\sqrt{p + \sqrt{p}}}{p}$