

جواب ۱

ملاحظه: ۱

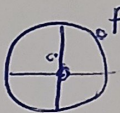
$$1) \frac{a \sin \frac{8\pi}{9} + b \cos \frac{8\pi}{9}}{a \sin \frac{11\pi}{9} + b \cos \frac{11\pi}{9}}$$

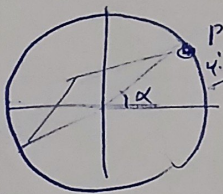
$$= \tan \frac{8\pi}{9} \Rightarrow \frac{b}{a} = ?$$

$$\frac{-\frac{\sqrt{2}}{2}a - \frac{\sqrt{2}}{2}b}{-\frac{1}{2}a + \frac{1}{2}b} = \frac{-\frac{\sqrt{2}}{2}(a+b)}{\frac{1}{2}(b-a)} = -\frac{\sqrt{2}}{1} \Rightarrow r(a+b) = b-a$$

$$\Rightarrow ra = -rb$$

$$\Rightarrow \frac{b}{a} = -\frac{r}{r} = -1$$

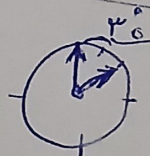
۲) $P(\frac{1}{2}, y)$  $\rightarrow -r \cdot i = P' \rightarrow S_{opp} = ?$

 $\rightarrow \sqrt{1 - \frac{1}{2}} = \frac{\sqrt{2}}{2} \Rightarrow \frac{\sqrt{2}}{2} \rightarrow$

$$S = \frac{1}{2} ab \sin \alpha = \frac{1}{2} \times 1 \times 1 \times \frac{1}{2} \left(\frac{1}{2} \right)$$

۳) $r + \frac{\pi}{9} = ?$

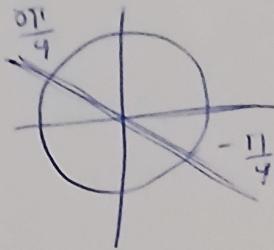
$$\omega = 2\pi \cdot 100$$



$$\Rightarrow \alpha = r \rightarrow r, \sigma' \text{ خورده}$$

$$r \times r = \frac{1}{2} \Rightarrow \omega = r = r_0$$

$$d) \sin x = \frac{m-r}{\omega} \quad , \quad -\frac{\pi}{4} < x \leq \frac{\pi}{4} \Rightarrow m = ?$$



$$\Rightarrow \max \sin = 1$$

$$\min \sin = -\frac{1}{r}$$

$$\Rightarrow -\frac{1}{r} \leq \frac{m-r}{\omega} \leq 1$$

$$\Rightarrow -\frac{\omega}{r} < m-r \leq \omega \Rightarrow \frac{1}{r} < m \leq 1$$

$$4) \frac{\sin(100^\circ) + k \cos(100^\circ)}{\cos(140^\circ) + r \sin(140^\circ)} = r \quad \Rightarrow \tan 10^\circ = r \quad k = 0$$

$$\frac{\sin\left(\frac{\pi}{r} + 10^\circ\right) + k \cos\left(\frac{r\pi}{r} - 10^\circ\right)}{\cos(\pi - 10^\circ) + r \sin(\pi + 10^\circ)} = \frac{\cos 10^\circ - k \sin 10^\circ}{-\cos 10^\circ - r \sin 10^\circ}$$

$$\div \cos 10^\circ \Rightarrow \frac{1 - k \tan 10^\circ}{-1 - r \tan 10^\circ} = \frac{1 - \frac{k}{r}}{-1 - \frac{1}{r}} = \frac{r - k}{-r} = r \Rightarrow k = rr$$

$$v) \quad \frac{1 - \cos x}{1 + \cos x} = r \Rightarrow \frac{\tan\left(\frac{\pi}{r} - x\right) - \cot(\pi - x)}{\cot\left(\frac{r\pi}{r} - x\right) + r \tan(\pi - x)} = ?$$

$$\frac{\cot x + \cot x}{-\tan x - r \tan x} = \frac{r \cot x}{-r \tan x} \Rightarrow \frac{1 - \cos x}{1 + \cos x} = r \quad \times \frac{1 - \cos x}{1 - \cos x}$$

$$\Rightarrow \left(\frac{1 - \cos x}{\sin x} \right)^r = r \Rightarrow \frac{1 - \cos x}{\sin x} = \sqrt[r]{r}$$

$$1) \quad \frac{10\lambda}{1\lambda_0} = \frac{9\pi}{\pi} \Rightarrow \frac{SA}{SB}$$

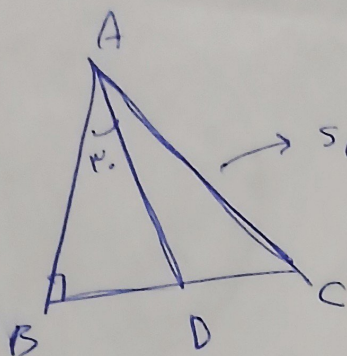
$$\frac{10\lambda}{1\lambda_0} = \frac{\pi}{\pi} \Rightarrow x = \frac{r\pi}{\delta}$$

$$\frac{r\pi}{\delta} \times r_A = \frac{4\pi}{10} \times r_B$$

$$\Rightarrow \frac{r_A}{r_B} = \left(\frac{r}{4} \right)$$

$$S = \frac{\alpha}{r} R^r = \frac{SA}{SB} = \frac{\alpha A}{\alpha B} \times \left(\frac{r_A}{r_B} \right)^r = \frac{\frac{r\pi}{\delta}}{\frac{9\pi}{10}} \times \left(\frac{r}{4} \right)^r = \frac{r}{4} \times \frac{r}{9} = \frac{1}{r^2}$$

10)



$$S_{ABC} = \sqrt{p} \Rightarrow \sin \alpha \cdot \frac{1}{2} \cdot c \cdot b = \sqrt{p}$$

$$\sin \alpha = \frac{1}{\sqrt{p}} \Rightarrow AB = p$$

$$\cos \alpha = \frac{\sqrt{p}}{1} \Rightarrow AB = \sqrt{p}$$

$$\rightarrow S = \frac{AB \times BC}{2} = \sqrt{p}$$

$$\Rightarrow \frac{\sqrt{p} \times BC}{2} = \sqrt{p}$$

$$\Rightarrow BC = 2$$

نقطه

$$\rightarrow \sqrt{p^2 + \sqrt{p}^2} = \sqrt{p} = AC \rightarrow DC = 1$$

$$\sqrt{(2\sqrt{p})^2 + p^2} = p$$

ارتفاع = (نقطه) از کمره و از

AB - مس و مس

$$\rightarrow \sin \alpha \cdot \frac{1}{\sqrt{p}} = \frac{1\sqrt{p}}{\sqrt{p}}$$