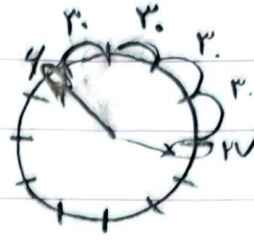


☆ 19,5

1: 04

$$r_0 + r_0 + r_0 + r_0 + 2V + 4 = \boxed{183}$$



(الف)

2

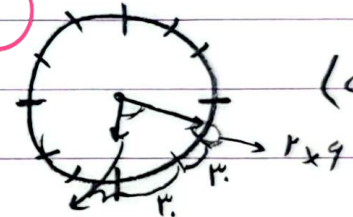
$$|0,0m - r_0 K| = |0,0 \times 04 - r_0 \times 3| = 2,0V$$

(ب)

$$340 - 2,0V = 183 \checkmark$$

$$r_0 + r_0 + 12 + \left(\frac{18}{2}\right) = \boxed{11}$$

2



(الف)

$$0,0 \times 18 + r_0 \times 4 = -11 \Rightarrow \boxed{11}$$

(ب)

$$\frac{\pi}{4} = \frac{\pi}{12} \quad \frac{\pi}{2} R^2 = \frac{\pi}{12} \times 3 \times 3 = \frac{3\pi}{4} = \boxed{135}$$

(الف)

نباید بر حسب درجه اعلام کنی!

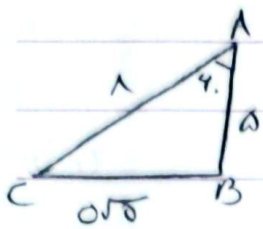
2

$$|AB| = ar = \frac{\pi}{4} \times 3 = \frac{\pi}{2} \quad \text{but} = 2r + AB = \boxed{4 + \frac{\pi}{2}} \quad (ب)$$

Subject:

Date:

Lms



$$\frac{1}{r} \times A \times \Delta \times \sin \varphi = r_0 \times \frac{\sqrt{r}}{r} = \boxed{10\sqrt{r}} \quad (\text{الف} - \text{ف})$$

$$Bc = \sqrt{c^2 + b^2 + 2bc \cos \varphi} \Rightarrow \sqrt{10 + 4\epsilon - 1 \times \epsilon} \quad (\text{ب} - \text{ب})$$

(1, 2)

$$\Rightarrow \sqrt{10 + \epsilon} = \sqrt{10} = 0\sqrt{0} \quad \boxed{1^2 + 0\sqrt{0}}$$

$$10 + 4\epsilon - \epsilon = 29 \rightarrow Bc < 1$$

$$B + c = 10, \quad Ac = 10\sqrt{r}, \quad Bc = 10$$

$$B_1 + c = 9, \quad c = 10 - B \Rightarrow c = 10 - (B_1 + B_r) = c = 9 - B_r$$

$$\frac{Ac}{\sin B} = \frac{Bc}{\sin A} = \frac{10\sqrt{r}}{\sin B} = \frac{10\sqrt{r}}{\sin B} = \frac{10}{\frac{1}{r}} = \sin B = \frac{\sqrt{r}}{r} \Rightarrow B = \epsilon_0$$

$$10 - \epsilon_0 = 10 \quad \epsilon_0 = \frac{\pi}{\epsilon} = B \quad \boxed{10 = c = \frac{\sqrt{r}}{1r}}$$

$$\frac{\tan(\pi - \varphi) + r \tan(\pi + \varphi)}{\tan(r\pi - \varphi) - \tan(r\pi + \varphi)} = \frac{-\tan \varphi + r \tan \varphi}{-\tan \varphi - \tan \varphi} =$$

$$\frac{\tan \varphi (-1 + r)}{\tan \varphi (-1 - 1)} = \frac{r}{-2} = \boxed{-1}$$

s.a.m

Subject:

Date:

$$\tan \frac{\pi}{12} = a \quad \frac{\frac{\pi}{12}}{\pi} = \frac{1}{12} \quad \frac{\pi}{12} = \frac{1}{12} \quad \pi = 12 \quad \checkmark$$

$$\frac{r \tan(\frac{\pi}{r} - 10) + \tan(\frac{\pi}{r} + 10)}{r \tan(\pi - 10) - \tan(\frac{\pi}{r} - 10)} = \frac{r \cot 10 - \cot 10}{-r \tan 10 + \cot 10} = \frac{\cot 10}{-r \tan 10 - \cot 10}$$

$$\frac{\frac{1}{a}}{ra - \frac{1}{a}} = \frac{1}{-ra^2 - 1} \quad \checkmark$$

$$\frac{\sin x + \cos x}{\sin x - \cos x} + \frac{\sin x - \cos x}{\sin x + \cos x} = r \Rightarrow \quad \checkmark$$

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

$$\Rightarrow r - r \cos^2 x = r \Rightarrow \cos^2 x = \frac{1}{r} \quad \tan x = \frac{\frac{1}{r}}{\frac{1}{r}} = 1 \quad \checkmark \quad \begin{array}{c} \sqrt{2} \\ 1 \end{array} \quad \begin{array}{c} \sqrt{2} \\ 1 \end{array}$$

$$\frac{\sin^2 x - r \cos^2 x + 1}{\sin^2 x + r \cos^2 x - 1} = e \quad \frac{1 - \cos^2 x - r \cos^2 x + 1}{1 + \cos^2 x - 1} = \frac{r - r \cos^2 x}{\cos^2 x} = e$$

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

$$\frac{r + \sin^2 x - r}{\cos^2 x} = \frac{-1 + \sin^2 x}{\cos^2 x} = -\frac{1}{\cos^2 x} + \tan^2 x \Rightarrow \tan^2 x = (1 + \tan^2 x) \quad \checkmark$$

$$\frac{\sin^2 x - r \cos^2 x + 1}{\sin^2 x + r \cos^2 x - 1} = \frac{r - r \cos^2 x}{\cos^2 x} = \frac{r}{\cos^2 x} - r = e \Rightarrow \frac{r}{\cos^2 x} = e + r \Rightarrow$$

$$\text{s.a.m} \quad \cos^2 x = \frac{r}{e+r} \quad \sin^2 x = 1 - \cos^2 x = \frac{e}{e+r} \quad \tan^2 x = \frac{\frac{e}{e+r}}{\frac{r}{e+r}} = \frac{e}{r} \quad \checkmark$$

Subject:

Date:

Cms

۱۰

$$\cos(12, \delta) \Rightarrow \cos\left(\frac{\alpha}{r}\right) = \pm \sqrt{\frac{1 + \cos \alpha}{r}} \Rightarrow \alpha = 60 \quad (\text{الف})$$

$$\cos 12, \delta \cdot \sqrt{\frac{1 + \cos 60}{r}} = \sqrt{\frac{1 + \frac{\sqrt{r}}{r}}{r}} = \sqrt{\frac{r + \sqrt{r}}{r}} \quad \text{✓} \quad \frac{\sqrt{r + \sqrt{r}}}{r} \quad \text{✓}$$

(ب)

$$\sin(4V, \delta)$$

 $\cos 12, \delta$ و $\sin 4V, \delta$ برابر است و می

$$\sin 4V, \delta = \sin \frac{\alpha}{r} = \pm \sqrt{\frac{1 + \cos \alpha}{r}} \Rightarrow \alpha = 120$$

$$\sqrt{\frac{1 - \cos 120}{r}} = \sqrt{\frac{1 - \frac{\sqrt{r}}{r}}{r}} = \sqrt{\frac{1 + \frac{\sqrt{r}}{r}}{r}} = \sqrt{\frac{r + \sqrt{r}}{r}} \quad \text{✓}$$

s.a.m