

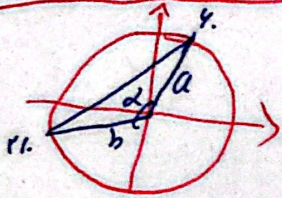
ثالث

مسألة

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

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

(1)



$$s = \frac{1}{r}ab \sin \alpha = \frac{1}{r}a \sin \alpha \Rightarrow \frac{1}{r} = \frac{1}{r}$$

(2)

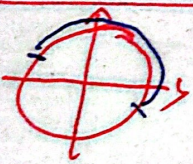
$$\frac{\pi}{a} = 10^\circ \Rightarrow \frac{r}{r} = \frac{r}{r} \Rightarrow \frac{r}{r} = 10^\circ \Rightarrow r = 10^\circ$$

(3)

$$\alpha = |\partial/\partial m - r \cdot h| \Rightarrow r = |\partial/\partial m - r \cdot h| \Rightarrow \begin{cases} \textcircled{1} \partial/\partial m = 1 \Rightarrow m = r \\ r \cdot \partial/\partial m = 1 \Rightarrow m = r \end{cases}$$

$$\Rightarrow r: r \Rightarrow \text{مساوية}$$

(4)



$$-\frac{1}{r} |\sin \alpha| \Rightarrow \frac{1}{r} \frac{m-r}{\omega} \Rightarrow \text{مساوية}$$

(5)

$$\Rightarrow m \in [\frac{1}{r}, 1]$$

$$\sin(180^\circ) = \cos 180^\circ, \cos 180^\circ = -\sin 180^\circ, \cos 180^\circ = -\cos 180^\circ, \sin 180^\circ = -\sin 180^\circ$$

(6)

$$\Rightarrow \frac{\cos 180^\circ - k \sin 180^\circ}{-\cos 180^\circ + \sin 180^\circ} \xrightarrow{\div \cos} \frac{1 - \frac{k}{r}}{1 - \frac{1}{r}} = 1 \Rightarrow \frac{k}{r} = 1 \Rightarrow k = r$$

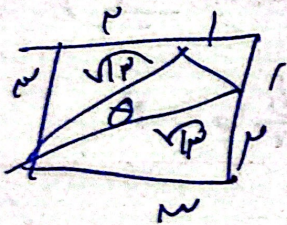
$$\cos(n) = \frac{1}{r} \Rightarrow \sin(n) = \frac{\sqrt{r}}{r}, \tan(\frac{\pi}{2} - n) = \cot n, \cot(\frac{\pi}{2} - n) = -\tan n$$

$$\Rightarrow \frac{r \cot n}{-\tan n} = -\frac{1}{r}$$

(7)

$$AB = \sqrt{r} \Rightarrow \sqrt{r} = \sqrt{r} \sin \alpha \Rightarrow BC = r \Rightarrow AC = \sqrt{r} \quad (9)$$

$$\Rightarrow \sin \alpha = \frac{r}{\sqrt{r}} \Rightarrow \sin \alpha = \frac{1}{\sqrt{r}} \Rightarrow \alpha = \arcsin \left(\frac{1}{\sqrt{r}} \right)$$



$$\Rightarrow \sin \alpha = \frac{1}{\sqrt{r}} \Rightarrow \alpha = \arcsin \left(\frac{1}{\sqrt{r}} \right)$$

$$\Rightarrow \alpha = \arcsin \left(\frac{1}{\sqrt{r}} \right) \Rightarrow \sin \alpha = \frac{1}{\sqrt{r}}$$