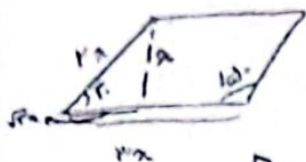


۲۲ حالت اول

برای هر A

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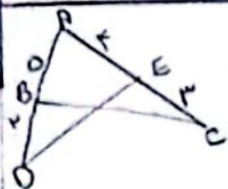
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$$S = r_1 \times r_2 \times \sin \alpha = \Delta f \rightarrow \frac{r_1 r_2}{r} = \Delta f \rightarrow r = \sqrt{12}$$

$$P = 11 \cdot m \xrightarrow{r = \sqrt{12}} 1 \cdot \sqrt{12} = \boxed{r \cdot \sqrt{12}}$$

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$$S_{ABC} - S_{AOC} = \frac{\sin A}{1} (\Delta XV) - \frac{\sin A}{1} (FXV) = V \Delta V$$

$$\frac{V \sin A}{1} = \frac{V}{F} \rightarrow \sin A = \frac{1}{F} \sim A = 1^\circ \sim \tan 1^\circ = \frac{1}{F}$$

$$\cos^2 A + \frac{1}{F^2} = 1 \rightarrow \cos = \frac{\sqrt{F^2 - 1}}{F} \Rightarrow \tan A = \frac{1}{\sqrt{F^2 - 1}} = \frac{\sqrt{F^2 - 1}}{F}$$

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$$\frac{1}{\sqrt{\cos^2 \alpha}} - \tan \alpha = \frac{1 + \sin \alpha}{|\cos \alpha|} \rightarrow -\tan \alpha = \frac{1 + \sin \alpha - 1}{|\cos \alpha|} \rightarrow \frac{-\sin \alpha}{\cos \alpha} = \frac{\sin \alpha}{|\cos \alpha|}$$

$$\rightarrow \cos \alpha < 0$$

$$\frac{|\sin \alpha|}{\cos \alpha} = \frac{-1}{\cos \alpha} \rightarrow \frac{|\sin \alpha|}{\cos \alpha} = \frac{-\sin \alpha}{\cos \alpha} \rightarrow \sin < 0$$



$$\tan\left(\frac{\pi}{2} - \alpha\right) = -\cot(\alpha) \xrightarrow{\tan \cdot \cot = 1} \boxed{-\frac{1}{F}}$$

$$\tan \alpha = -\frac{1}{F}$$

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$$\frac{r \cos(\pi/2 - \alpha) - r \sin(\pi/2 - \alpha)}{\sin(\pi/2 - \alpha) - \cos(\pi/2 - \alpha)} = \frac{-r \cos(\alpha) - r \sin(\alpha)}{-\sin(\alpha) - \cos(\alpha)} \quad \frac{\cos(\pi/2 - \alpha) = \sin(\alpha)}{\sin(\pi/2 - \alpha) = \cos(\alpha)}$$

$$\frac{\Delta \sin(\pi/2)}{r \sin(\pi/2)} = r, \Delta$$

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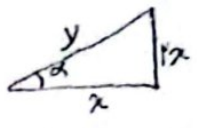
$$\cos x = \frac{r}{F}, \quad \sin\left(\frac{\pi}{r} + \alpha\right) = \cos \alpha, \quad \sin(\alpha - \pi) = -\sin(\pi - \alpha) = -\sin \alpha$$

$$1 + \tan \alpha = \frac{1}{\frac{r}{F}} = \frac{F}{r} \rightarrow \tan \alpha = \frac{F}{r}, \quad \sin^2 + \frac{r}{F} \sin = 1 \rightarrow \sin = \frac{\sqrt{F}}{F}$$

$$\rightarrow \frac{\sin\left(\frac{\pi}{r} + \alpha\right) - \sin(\alpha - \pi)}{|\tan \alpha - 1|} = \frac{\cos \alpha + \sin \alpha}{\frac{1}{F}} = \frac{\frac{r}{F} + \frac{\sqrt{F}}{F}}{\frac{1}{F}} = \frac{r + \sqrt{F}}{1} = \frac{r + \sqrt{F}}{1}$$

(14)

$$\sin \alpha = r \cos \alpha, \quad r \cos \alpha$$



$$\rightarrow y^2 = r^2 - x^2 \rightarrow y = \sqrt{r^2 - x^2} \rightarrow \cos \alpha = \frac{x}{r} = \frac{\sqrt{r^2 - y^2}}{r} \rightarrow \frac{r \cos \alpha}{r} = \frac{\sqrt{r^2 - y^2}}{r}$$

(15)

$$r m m + (m^2 - 1) y - r = 0, \quad \tan \alpha = \frac{-a}{b} = \frac{-r m}{m^2 - 1} = \sqrt{r}$$

$$\rightarrow \sqrt{r} m^2 - \sqrt{r} = -r m \rightarrow \sqrt{r} m^2 + r m - \sqrt{r} = 0 \rightarrow m = \frac{-r \pm \sqrt{r^2 + 4r}}{2\sqrt{r}}$$

(16)

$$\frac{-\pi}{\epsilon} < \frac{\pi}{\epsilon} \rightarrow \frac{-\pi}{\epsilon} < -\alpha < \frac{\pi}{\epsilon} \rightarrow \frac{\pi}{F} - \alpha < \frac{\pi}{F} \rightarrow \tan \cdot \left(\frac{1-m}{r m} \right) < \tan \frac{\pi}{F}$$

$$\rightarrow \frac{1-m}{r+m} < 1 \rightarrow \text{مقادیر مثبت}$$

$$\rightarrow \frac{1-m}{r+m} > -1 \rightarrow \frac{-r}{-r+m} \rightarrow (-r, 1)$$

(17)

$$\tan r \cdot \cos r + \tan r \cdot \sin r = -\sqrt{r} \cdot \frac{-\sqrt{r}}{r} + \sqrt{r} \cdot \frac{\sqrt{r}}{r} = \frac{r}{r} + \frac{r}{r} = 2$$

(1,0)