

س کونکے اللع = 4E

$$S_{ABCD} = AB \times AD \times \sin A = 2n \times 2n \times \frac{1}{2} = 2n^2 = 4E \rightarrow n = \sqrt{E}$$

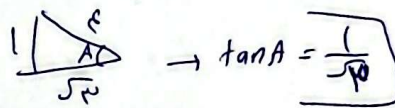
صفا = $2(2n + 2n) = 10n \rightarrow$ صفا = $10\sqrt{E}$

5 (1)

$$S_{ABC} - S_{ADE} = 1/4 d$$

$$\left. \begin{aligned} S_{ABC} &= d \times (E + 2) \sin A = 2d \sin A \\ S_{ADE} &= E \times (d + 2) \sin A = 2E \sin A \end{aligned} \right\} \Rightarrow 2d \sin A - 2E \sin A = V \sin A$$

$$\rightarrow V \sin A = 1/4 d \rightarrow \sin A = \frac{1}{4}$$



5 (2)

$$\frac{1}{\sqrt{\cos \alpha}} - \tan \alpha = \frac{1 + \sin \alpha}{|\cos \alpha|} \rightarrow \frac{1}{|\cos \alpha|} - \frac{\sin \alpha}{\cos \alpha} \begin{cases} \cos \alpha & \frac{1 - \sin \alpha}{\cos \alpha} \neq \frac{1 + \sin \alpha}{\cos \alpha} \\ \cos \alpha & -\frac{1 + \sin \alpha}{\cos \alpha} = \frac{1 + \sin \alpha}{-\cos \alpha} \end{cases}$$

$$\frac{|\sin \alpha|}{\cos \alpha} = \frac{-1}{\cot \alpha} \rightarrow \frac{|\sin \alpha|}{\cos \alpha} = -\tan \begin{cases} \sin \alpha & \frac{\sin}{\cos} = \tan \alpha \\ \sin \alpha & \frac{-\sin}{\cos} = -\tan \alpha \end{cases} \rightarrow \sin \alpha \text{ (2)}$$

5 (2)

$\alpha < \pi/2$ یا $\alpha > \pi/2$ (1) (2)

$$\tan(\pi/2 - \alpha) = \cot \alpha$$

$$\alpha + \beta = \pi \begin{cases} \sin \beta = \sin \alpha \rightarrow \frac{1/d}{2/d} = \frac{1}{2} \text{ (1)} \\ \cos \beta = -\cos \alpha \rightarrow \frac{-2}{2/d} = \frac{-2}{d} \text{ (2)} \end{cases}$$

$$\rightarrow \frac{-2}{2/d} = \frac{-2}{d} \text{ (2)}$$

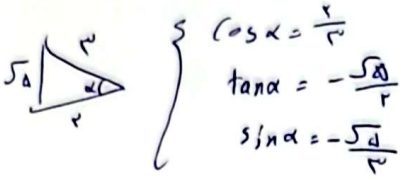
5 (2)

$$\text{(1) \& (2)} \Rightarrow \cot \alpha = \frac{-\frac{2}{d}}{\frac{1}{2}} = -\frac{4}{d}$$

$$\frac{r \cos(\pi/2) - r \sin(\pi/2)}{\sin(\pi/2) - \cos(\pi/2)} = \frac{r \cos(\pi/2 - \pi) - r \sin(\pi/2 - \pi)}{\sin(\pi/2 + \pi) - \cos(\pi/2 + \pi)} = \frac{-r \sin \pi - r \sin \pi}{-r \sin \pi - r \sin \pi} = \frac{-2r \sin \pi}{-2r \sin \pi} = 1$$

5 (2)

$$\cos \alpha = \frac{r}{r} \Rightarrow \cos \alpha = 1$$



$$\left. \begin{aligned} \cos \alpha &= \frac{r}{r} \\ \tan \alpha &= -\frac{\sqrt{A}}{r} \\ \sin \alpha &= -\frac{\sqrt{A}}{r} \end{aligned} \right\}$$

$$\frac{\sin(\frac{\pi}{2} + \alpha) - \sin(\alpha - \pi)}{|\tan^2 \alpha - 1|} = \frac{\cos \alpha + \sin \alpha}{|\tan^2 \alpha - 1|}$$

$$\rightarrow \frac{\frac{r}{r} - \frac{\sqrt{A}}{r}}{|\frac{A}{r^2} - \frac{r}{r}|} = \frac{1 - \sqrt{A}}{r}$$

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$$\sin \alpha = r \cos \alpha \quad \alpha = \text{پہلے}$$

$$\cos \alpha = -\frac{1}{\sqrt{A}}$$

$$\sin^2 \alpha + \cos^2 \alpha = 1 \rightarrow r^2 \cos^2 \alpha + \cos^2 \alpha = 1 \rightarrow \Delta \cos^2 \alpha = 1$$

$$\left[\begin{aligned} \cos \alpha &= \frac{1}{\sqrt{A}} \times \\ \cos \alpha &= -\frac{1}{\sqrt{A}} \checkmark \end{aligned} \right] \text{پہلے}$$

✓

$$r m x + (m^2 - 1)y = r \rightarrow y = \frac{-r m}{m^2 - 1} x + \frac{r}{m^2 - 1}$$

$$\tan \theta = \sqrt{r} \rightarrow \frac{-r m}{m^2 - 1} = \sqrt{r} \rightarrow \sqrt{r} m^2 - \sqrt{r} = -r m \rightarrow \sqrt{r} m^2 + r m - \sqrt{r} = 0$$

$$\Delta = r^2 \quad m_1 = \frac{1}{\sqrt{r}} \quad m_2 = -\frac{r}{\sqrt{r}}$$

$$6 m \sin \theta = \frac{1}{\sqrt{r}} - \left(-\frac{r}{\sqrt{r}}\right) = \frac{r+1}{\sqrt{r}}$$

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$$-\frac{\pi}{2} < x < \frac{\pi}{2} \rightarrow 0 < \pi - \frac{\pi}{2} < \frac{\pi}{2}$$

$$\frac{1-m}{r+m} > 0 \rightarrow m \in \left(\frac{1}{r}, 1\right) \leftarrow \oplus \tan \leftarrow \text{دائرہ کے اندر}$$

1, \sqrt{A}

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$$\tan(\pi_0) \cos(\pi_1) + \tan(\pi_2) \sin(\pi_3) = (-\sqrt{r}) \times \left(-\frac{\sqrt{r}}{r}\right) + (-\sqrt{r}) \left(\frac{\sqrt{r}}{r}\right) = 0$$

$$\pi_1 = \pi_2 + \pi_3 \rightarrow \tan(\pi_1) = \tan(\pi_2)$$

$$\pi_3 = (\pi_2 + \pi_4) + \pi_5 \rightarrow \sin(\pi_3) = \sin(\pi_4)$$

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