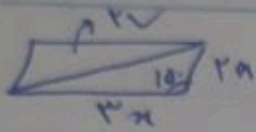


بار (دھم افتر) ()

زھرا انعامی

Subject

Date



$$\frac{1}{2} \times 3x \times 2x \times \sin 45^\circ = \frac{1}{2} \times 27$$

$$\frac{3}{2} x^2 \times \frac{\sqrt{2}}{2} = 18 \rightarrow x^2 = \frac{18 \times 2}{3\sqrt{2}} = \frac{12}{\sqrt{2}} = 6\sqrt{2}$$

$$3 \times 3\sqrt{2} = 9\sqrt{2} \times 2 = 18\sqrt{2}$$

$$2 \times 3\sqrt{2} = 6\sqrt{2} \times 2 = 12\sqrt{2} \quad + \quad \rightarrow \boxed{30\sqrt{2}}$$

سے بائیں

$$\frac{1}{2} \times AB \times AC \times \sin(A) = 11\sqrt{8}$$

$$\frac{1}{2} \times AE \times AD \times \sin A = 11\sqrt{8}$$

$$\frac{1}{2} \times 20 \times V \times \sin A = 11\sqrt{8}$$

$$\frac{1}{2} \times E \times V \times \sin A = 11\sqrt{8}$$

$$\frac{20}{2} \sin A = \frac{2A}{2} \sin A = \frac{V}{2} \sin A = \frac{V}{2} \rightarrow \sin A = \frac{1}{2}$$

$$\sin A = \frac{1}{2} \Rightarrow A = 30^\circ \Rightarrow \tan 30^\circ = \frac{\sqrt{3}}{3}$$

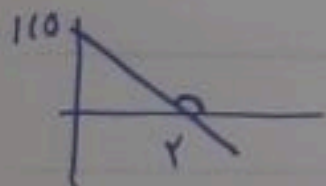
جوں گفتہ

$$\frac{|\sin \alpha|}{\cos \alpha} = \frac{1}{\cot \alpha} \quad , \quad \frac{1}{\sqrt{\cos^2 \alpha}} = \tan \alpha \cdot \frac{1 + \sin \alpha}{|\cos \alpha|} \quad (\text{سوال ۳})$$

$$|\tan \alpha| = \frac{1}{\cot \alpha} \Rightarrow \tan \alpha \rightarrow \text{مع ادم با هم}$$

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$$m = \frac{0 - 110}{r - 0} = -\frac{110}{r} = \tan \theta \quad (\text{سوال ۴}) \quad \text{نقطه مثبت (-) است}$$



$$\theta = \pi - \alpha \rightarrow \tan(\theta) = \tan(\pi - \alpha)$$

$$\tan(\alpha) = \frac{110}{r} \quad \leftarrow \quad m = -\tan(\alpha)$$

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$$\tan\left(\frac{\pi}{2} - \alpha\right) = \cot(\alpha)$$

$$\tan\left(\frac{\pi}{2} - \alpha\right) = \cot(\alpha) = \frac{1}{\tan(\alpha)} = \frac{r}{110}$$

$$\tan\left(\frac{\pi}{2} - \alpha\right) = \left[\frac{r}{110} \right]$$

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$$\frac{\frac{1}{\sqrt{2}} \cos(\frac{1}{\sqrt{2}}) - \frac{1}{\sqrt{2}} \sin(\frac{1}{\sqrt{2}})}{\sin(\frac{1}{\sqrt{2}}) - \cos(\frac{1}{\sqrt{2}})}$$

$$\frac{-\frac{1}{\sqrt{2}} \sin \frac{1}{\sqrt{2}} - \frac{1}{\sqrt{2}} \sin \frac{1}{\sqrt{2}}}{-\sin \frac{1}{\sqrt{2}} - \sin \frac{1}{\sqrt{2}}} = \frac{-\frac{2}{\sqrt{2}} \sin \frac{1}{\sqrt{2}}}{-2 \sin \frac{1}{\sqrt{2}}}$$

$$\boxed{\frac{1}{\sqrt{2}}}$$

$$\sin(\frac{1}{\sqrt{2}} \alpha) - \sin(\alpha - \frac{1}{\sqrt{2}})$$

$\frac{1}{\sqrt{2}} \sin \alpha = \alpha$ (4)
 $\sin \alpha = \frac{1}{\sqrt{2}}$
 $\cos \alpha = \frac{1}{\sqrt{2}}$

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

$\cos^2 \alpha + \sin^2 \alpha = 1$
 $\frac{1}{2} + \frac{1}{2} = 1$

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

$$\sin \frac{1}{\sqrt{2}} = \frac{\sqrt{2}}{2} = \frac{1}{\sqrt{2}} = \frac{\sin}{\cos}$$

$$\sin \alpha + \cos \alpha \quad \left\{ \begin{array}{l} \sin^2 \alpha + \cos^2 \alpha = 1 \\ (\cos \alpha)^2 + \cos^2 \alpha = 1 \end{array} \right. \quad (V)$$

$$2 \cos^2 \alpha = 1$$

$$\cos^2 \alpha = \frac{1}{2}$$

$$\cos \alpha = \pm \frac{1}{\sqrt{2}}$$

$\cos \alpha = \pm \frac{1}{\sqrt{2}}$ $\left[\frac{-\sqrt{2}}{2} \right]$ صحیح جواب \cos یعنی مثبت پس جواب $\left[\frac{-\sqrt{2}}{2} \right]$

$$-2y = 9 \rightarrow y = -\frac{9}{2} \quad \left. \begin{array}{l} \textcircled{1} \\ \frac{2\sqrt{3+4}}{4} = 2 \rightarrow \alpha_1 = \frac{2\sqrt{4}}{4} \end{array} \right\} \text{initial}$$

$$m\alpha + (m^2 - 1)y = 2 \quad \text{حيث } \tan \alpha = \sqrt{3} \quad (1)$$

$$(m^2 + 1)y = -2m\alpha + 2 \Rightarrow \text{حيث } K_2 = \frac{2m}{m^2 - 1} = \sqrt{3}$$

$$-2m = \sqrt{3}(m^2 - 1) \Rightarrow \sqrt{3}m^2 + 2m - \sqrt{3} = 0 \quad \Delta = 4 + 12 = 16$$

$$m_1 = \frac{-2 + \sqrt{16}}{2\sqrt{3}} = \frac{-2 + 4}{2\sqrt{3}} = \frac{2}{2\sqrt{3}} = \frac{1}{\sqrt{3}} \rightarrow \frac{1}{\sqrt{3}} = m_1$$

حيث $\frac{1}{\sqrt{3}} = m_1$

$$\tan\left(\frac{\pi}{6} - \alpha\right) = \frac{1-m}{1+m} > -\frac{1}{\sqrt{3}} < \alpha < \frac{\pi}{6} \rightarrow -1 < \tan \alpha < 1 \quad (9)$$

$$\tan\left(\frac{\pi}{6} - \alpha\right) = \frac{1 - \tan \alpha}{1 + \tan \alpha} = \frac{1-t}{1+t} \quad -1 < t < 1$$

$$\frac{1-t}{1+t} = \frac{1-m}{1+m} \Rightarrow (1-t)(1+m) = (1-m)(1+t)$$

$$1+m - t - mt = 1+t - m - mt$$

$$1+m - t - mt = 1+t - m - mt \Rightarrow t = \frac{1+m}{2} \Rightarrow -1 < \frac{1+m}{2} < 1$$

A $\Rightarrow 1+m < 2 \quad 1+m < 2 \rightarrow m < 1$

B $\Rightarrow -2 < 1+m \quad -2 < 1+m \quad m > -3 \Rightarrow -1 < m < 1$

$$\tan(\pi - \alpha) \cos(\pi - \alpha) + \tan(\pi - \alpha) \sin(\pi - \alpha) \quad (10)$$

$$\textcircled{A} \tan(\pi - \alpha) = -\tan(\alpha) \times \frac{\cos(\pi - \alpha)}{-\cos(\alpha)} \Rightarrow -\sqrt{3} \times \frac{-\sqrt{3}}{1} = \frac{3}{1}$$

$$\textcircled{B} \tan(\pi - \alpha) = \tan(\pi - \alpha) = -\tan(\alpha) = -\sqrt{3}$$

$$\sin(\pi - \alpha) = (\pi - \alpha) + (\pi - \alpha) = \sin(\alpha) = \frac{\sqrt{3}}{2}$$

$$\frac{\sqrt{3}}{2} \times -\sqrt{3} = -\frac{3}{2} \quad \frac{3}{2} - \frac{3}{2} = 0$$