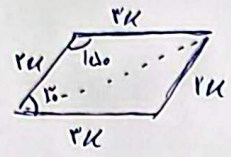


معین نصری

یازدهم ب

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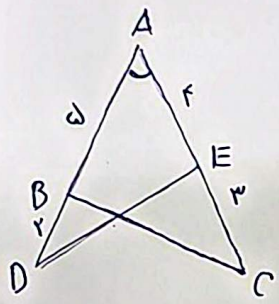


$$S = \omega F \Rightarrow 2 \left(\frac{1}{2} \times 2k \times 2k \times \sin(120^\circ) \right) = 2k^2 = \omega F \quad (1)$$

$$P = 2(2k) + 2(2k) = 10k \rightarrow \boxed{30\sqrt{3}} \quad (2)$$

$$k^2 = 1A \quad (3)$$

$$\boxed{k = 2\sqrt{2}} \quad (4)$$



$$S_{ABC} - S_{ADE} = 1/2 \omega$$

$$\left(\frac{1}{2} \times \omega \times V \times \sin A \right) - \left(\frac{1}{2} \times f \times V \times \sin A \right) = 1/2 \omega$$

$$\frac{3\omega \sin A}{2} - \frac{f \omega \sin A}{2} = 1/2 \omega \xrightarrow{\times 2} 3\omega \sin A - f \omega \sin A = \omega$$

$$\omega \sin A = 1/3 \Rightarrow \sin A = 1/3$$

$$\tan A = \frac{\sqrt{3}}{3} \Rightarrow A = 30^\circ \quad (5)$$

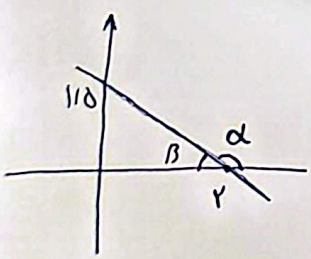
$0 < A < 90 \Rightarrow \sin A = 1/3$

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

$$\frac{1 + \sin \alpha}{\cos \alpha} = \frac{1}{\cos \alpha} - \tan \alpha \Rightarrow \sin \alpha < 0 \quad (6)$$

$$\cos \alpha < 0 \quad (7)$$

\Rightarrow در ناحیه سوم مستقیم فقط تکرار دار

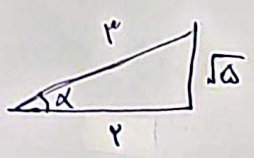


$$\tan \beta = \frac{r}{k}, \quad \hat{B} + \alpha = 180^\circ \Rightarrow \tan \beta = -\tan \alpha$$

$$\Rightarrow \tan \alpha = -\frac{r}{k} \quad (8)$$

$$\tan\left(\frac{\pi}{4} - \alpha\right) = \cot \alpha = \frac{-r}{k} \quad (9)$$

$$\frac{r \sin(45^\circ) + k \sin(45^\circ)}{r \cos(45^\circ) + k \cos(45^\circ)} = \frac{r \sin(45^\circ) + k \sin(45^\circ)}{\sin(45^\circ) + \sin(45^\circ)} = \frac{r+k}{2} \quad (10)$$



$$\begin{aligned} \cos \alpha &= \frac{2}{3} \\ \sin \alpha &= -\frac{\sqrt{5}}{3} \\ \tan \alpha &= -\frac{\sqrt{5}}{2} \\ \cot \alpha &= -\frac{2}{\sqrt{5}} \end{aligned}$$

$$\frac{\cos \alpha}{\sin(\frac{\pi}{2} + \alpha)} = \frac{\sin \alpha}{\sin(\alpha - \pi)} = \frac{\frac{2}{3} + (-\frac{\sqrt{5}}{3})}{\frac{2}{3} - \frac{2}{3}} = \frac{2 - \sqrt{5}}{0}$$

$$\Rightarrow \frac{1 - \sqrt{5}}{3}$$

$\sin \alpha = 2 \cos \alpha$

$\sin^2 \alpha + \cos^2 \alpha = 1 \Rightarrow 4 \cos^2 \alpha + \cos^2 \alpha = 1$

داده نایب سیم

$\cos \alpha = ?$

$\cos^2 \alpha = \frac{1}{5}$

$\cos \alpha = \pm \frac{\sqrt{5}}{5} \xrightarrow{\cos \alpha < 0} \frac{-\sqrt{5}}{5}$

$2mx + (m^2 - 1)y = 3 \Rightarrow \frac{2m}{m^2 - 1} = \sqrt{3} \Rightarrow -2m = \sqrt{3}m^2 - \sqrt{3} \Rightarrow \sqrt{3}m^2 + 2m - \sqrt{3}$

$\tan 45^\circ = \sqrt{3}$

$\Delta_{\min} = \frac{\sqrt{\Delta}}{|a|} = \frac{\sqrt{4 - (-12)}}{\sqrt{3}} = \frac{4}{\sqrt{3}} = \frac{4\sqrt{3}}{3}$

$\tan(\frac{\pi}{2} - \alpha) = \frac{1 - m}{2 + m} \quad , \quad -\frac{\pi}{2} < \alpha < \frac{\pi}{2}$

$\alpha = \frac{\pi}{2} \rightarrow \tan \alpha = \infty$

$\alpha = -\frac{\pi}{2} \rightarrow \tan \alpha = -\infty$

ت.ن
مقادیر مثبت و مثبت در آن

$\Rightarrow \frac{1 - m}{2 + m} > 0 \quad \frac{-2}{-1} + \frac{1}{-}$

$m \in (-2, 1)$

$\tan(45^\circ) \cos(45^\circ) + \tan(45^\circ) \sin(45^\circ) = (-\sqrt{3})(-\frac{\sqrt{3}}{2}) + (-\sqrt{3})(\frac{\sqrt{3}}{2})$

$\frac{3}{2} - \frac{3}{2} = 0$ صفر