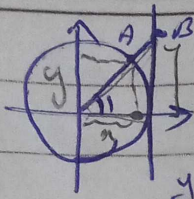


سولند زاهدان



$$x = \cos(90 - \alpha) = \sin \alpha$$

$$z = \tan(90 - \alpha) \quad (1)$$

$$y = \sin(90 - \alpha)$$

$$z = \cot \alpha$$

$$1 + z^2 = OB^2 \quad 1 + \cot^2 \alpha = OB^2$$

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

$$OB = \frac{1}{\sin \alpha}$$

$$5 \quad r^2 + y^2 = 1 = OA^2 \Rightarrow OA = 1 \quad OB - OA = AB$$

$$\frac{1}{\sin \alpha} - 1 = AB$$

$$\frac{BD}{\sin 30} = \frac{AB}{\sin(110 - \alpha)}$$

$$\frac{CD}{\sin 30} = \frac{AC}{\sin \alpha} \Rightarrow$$

(13)

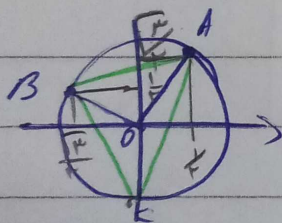
$$10 \quad \frac{12}{12} = \frac{AB}{\sin \alpha}$$

$$\frac{12}{12} = \frac{12}{12}$$

$$\frac{12}{12} = \frac{AC}{\sin \alpha}$$

$$\frac{AB}{\sin \alpha} = \frac{AC}{\sin \alpha}$$

$$\frac{12}{12} = \frac{12}{12} = \frac{AB}{AC} = 12$$



$$A \mid \frac{1}{2} \quad B \mid \frac{1}{2} \quad C \mid -1$$

(14)

15

و در این صورت قرار دارد

$$AOB = 40 + 50 = 90 \quad A_1 = B_1 = 10$$

$$AOC = 40 + 90 = 130 \quad A_2 = C_2 = 10$$

$$A = 40 \quad BOC = 30 + 90 = 120 \quad B_2 = C_2 = 30$$

$$S_{ABC} = \frac{1}{2} \sin 40 \cdot AB \cdot AC$$

$$20 \quad AB = \sqrt{\left(\frac{1}{2} - \frac{1}{2}\right)^2 + \left(\frac{1}{2} - \frac{1}{2}\right)^2} = \sqrt{\frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} - \frac{1}{2}} = \sqrt{1}$$

$$AC = \sqrt{\left(\frac{1}{2} - 0\right)^2 + \left(\frac{1}{2} + 1\right)^2} = \sqrt{\frac{1}{2} + \frac{1}{2} + 1 + 1} = \sqrt{3}$$

$$S_{ABC} = \frac{1}{2} \times \frac{1}{2} \times \sqrt{1} \times \sqrt{3}$$

$$BC = \sqrt{\left(\frac{1}{2}\right)^2 + \left(\frac{1}{2} + 1\right)^2} = \sqrt{\frac{1}{2} + \frac{9}{2}} = \sqrt{5}$$

$$25 \quad P_{ABC} = AC + AB + BC$$

$$\sqrt{1} + \sqrt{3} + \sqrt{5}$$

$$S_{ABC} = \frac{1}{2} \sin \alpha \cdot AB \cdot AC$$

$$S_{ABC} = \frac{1}{2} \times \frac{1}{2} \times \frac{1}{2} \times \frac{1}{2} = \frac{1}{8}$$

$$S_{ABC} = \frac{1}{8}$$

$$\cos \alpha = \frac{a^2 + b^2 - c^2}{2ab}$$

$$x^2 = \cos^2 \alpha$$

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

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

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

$$m^2 - n^2 = (1 - m^2)(-n^2) = m^2 - n^2 + (n^2)(1 - m^2)$$

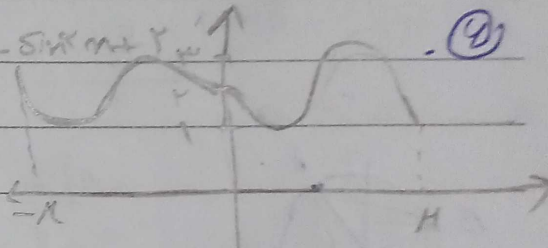
$$m^2 - n^2 + n^2 - n^2 = x^2 + 1 \quad a = \pm 1 \quad 1 = \cos^2 \alpha$$

$$15m \cos \alpha = \sin^2 \alpha = 0 \quad \sin \alpha = 0 \quad \cos \alpha = \pm 1$$

$$y = -r \sin m \cos m + r$$

$$y = -\sin m + r$$

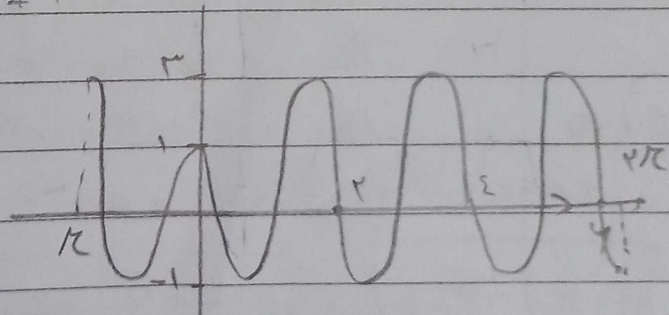
$$T = \frac{2\pi}{|b|} = \frac{2\pi}{1} = 2\pi$$



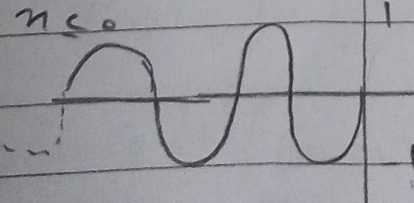
$$y = r \cos \left(\frac{\pi}{2} m + \frac{\pi}{2} \right) + 1$$

$$T = \frac{2\pi}{\frac{\pi}{2}} = 4$$

$$y = -r \sin \left(\frac{\pi}{2} m \right) + 1$$



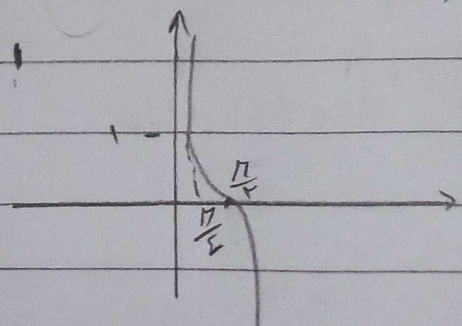
$$\sin m \quad m \leq 0$$



$$R = [-1, 1] \cup (1, \infty)$$

$$R = [-1, +\infty)$$

$$\cot m \quad 0 < m < \frac{\pi}{2}$$



②

$$T = \frac{R}{r} = \frac{R}{10} = \frac{\omega R \cdot L}{10} = \frac{F R}{10} = \frac{F R}{\omega}$$

$$\begin{aligned} \max & \quad a + \left| \frac{b}{2} \right| \quad z \leq 1 \\ \min & \quad a - \left| \frac{b}{2} \right| \quad z \geq 0 \end{aligned} \quad \Rightarrow \quad a = r \quad \left| \frac{b}{2} \right| = r$$

10

9

$$f(\theta) = -\mu \cos \theta - 1$$

سوقین بابی ضدی ۲۰

$|\tan \alpha| = 0$

102

20

$$P_{\text{res}}(\omega) + P_{\text{ref}}(\omega) + P_{\text{ref}} = VI$$