

$$\frac{-\frac{\sqrt{13}}{2}a - \frac{\sqrt{13}}{2}b}{-\frac{1}{2}a + \frac{1}{2}b}$$

$$= \frac{-\frac{\sqrt{13}}{2}(a+b)}{\frac{1}{2}(b-a)} = -\frac{\sqrt{13}}{13}$$

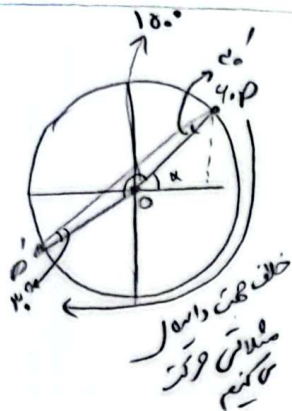
$$2(a+b) = b-a$$

$$3a + 2b = b - a$$

$$4a = -2b \rightarrow \frac{b}{a} = \frac{2}{-2}$$

$$\rightarrow \boxed{-2} \text{ جواب}$$

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$$S_{\text{شعاع}} = \sin \alpha \times \frac{1}{4} \times \text{ضلع} \times \text{ضلع}$$

$$S = \frac{1}{4} \times 1 \times 1 \times \frac{1}{4} = \frac{1}{16}$$

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$$\frac{\frac{11}{9}}{\frac{11}{9}} \rightarrow 180$$

$$180 \times \frac{\pi}{9} \times \frac{1}{4} = 20$$

$$\xrightarrow{\text{عدد حاصل چرخش}} 20 \times 2 = 40 \Rightarrow \text{بعد از چرخش ۹۰ درجه}$$

عقرب سمت شرق
عقرب دقیقه شرقی برابر با حاصل
داد عدد ۲۰ کنیم

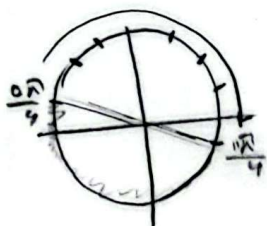
$$\frac{20:40}{3}$$

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$$x = \left| \frac{11}{4}m - 30H \right| \rightarrow \begin{cases} 515m - 90.5H \rightarrow \frac{11}{4}m = 110 \\ 515m - 90.5H = -20 \rightarrow \frac{11}{4}m = 70 \end{cases}$$

$$\begin{matrix} m = 20 \\ m = \frac{140}{11} \end{matrix} \rightarrow 20 > \frac{140}{11} \rightarrow \begin{cases} 20 \text{ min} \rightarrow \text{بار دوم} \\ \frac{140}{11} \text{ min} \rightarrow \text{بار اول} \end{cases}$$

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$$-\frac{1}{4} < \sin m \leq \frac{1}{4} \rightarrow -\frac{1}{4} < \frac{m-5}{5} < \frac{1}{4}$$

$$-\frac{5}{4} < m-5 < 5$$

$$\xrightarrow{+5} \boxed{\frac{1}{4} < m \leq 8}$$

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$$\frac{\sin(\frac{\pi}{4} + 18) + K \cos(\frac{\pi}{4} - 18)}{\cos(\pi - 18) + Y \sin(\pi + 18)} = Y$$

$$Y = \frac{\cos 18 + (-K \sin 18)}{-\cos 18 - Y \sin 18} \quad \text{من طرفي ضرب في } \frac{1}{\cos 18} \text{ ثم نضرب في } \frac{1}{Y}$$

$$Y = \frac{1 - \frac{K}{Y}}{-1 - \frac{1}{Y}} \rightarrow -\frac{Y}{Y} - \frac{Y}{Y} = -\frac{K}{Y}$$

$$\frac{2Y}{Y} = \frac{K}{Y} \rightarrow K = 2Y$$

$$\frac{\cos m + \cos m}{-\cos m - Y \cos m} = \frac{Y \cos m}{-Y \cos m}$$

$$\frac{1 - \cos m}{1 + \cos m} = Y \rightarrow 1 - \cos m = Y + Y \cos m \rightarrow 1 - Y \cos m = \cos m \rightarrow \cos m = \frac{1}{1+Y}$$

$$\rightarrow \cos m < 1 / \sin m > 0 / \tan m < 1 / \cot m > 0$$

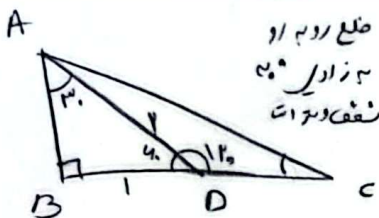
$$\frac{Y \cos m}{-Y \cos m} = \frac{-1Y}{Y} = -1$$

$$\frac{10A}{1A0} = \frac{Y\pi}{0} \rightarrow K A_R = \alpha_B R_B$$

$$\frac{Y\pi}{0} \times R_A = \frac{9\pi}{1} \times R_B$$

$$\frac{R_A}{R_B} = \frac{Y}{9}$$

$$\frac{S_A}{S_B} = \left(\frac{R_A}{R_B}\right)^2 \times \frac{A}{A} = \left(\frac{Y}{9}\right)^2 = \frac{Y^2}{81}$$



$$\rightarrow AD = Y$$

$$AB = Y \times \frac{\sqrt{2}}{Y} \rightarrow \sqrt{2}$$

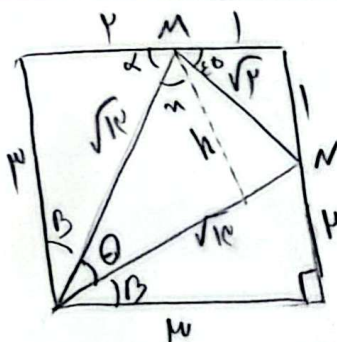
$$S_{ABC} = \sqrt{2} \rightarrow \frac{1}{2} \times AB \times BC = \sqrt{2} \rightarrow \frac{1}{2} \times \sqrt{2} \times \sqrt{2} = \sqrt{2}$$

$$BC = Y \rightarrow DC = 1, AC = \sqrt{1+Y^2} = \sqrt{2}$$

$$\sin C = \frac{Y}{\sqrt{2}}$$

$$\cos C = \frac{Y}{\sqrt{2}}$$

$$\sin C = Y \sin C \cos C = Y \times \frac{Y}{\sqrt{2}} \times \frac{Y}{\sqrt{2}} = \frac{Y^3}{2}$$



$$\alpha + \beta = 90$$

$$\alpha + \beta = 180$$

$$\theta + r\beta = 90$$

$$h = \sqrt{1^2 - n^2} = \sqrt{r^2 - y^2} \rightarrow 1^2 - n^2 = r^2 - y^2$$

$$n^2 - y^2 = 1 \rightarrow (n-y)(n+y) = 1$$

$$n+y = \sqrt{2}$$

$$\rightarrow Y = \frac{1+1}{\sqrt{2}} = \frac{2}{\sqrt{2}} = \sqrt{2}$$

$$\rightarrow h = \sqrt{\frac{1^2}{2}} = \frac{1}{\sqrt{2}}$$

$$\sin \theta = \frac{h}{1} = \frac{1}{\sqrt{2}} \times \frac{1}{\sqrt{2}} = \frac{1}{2}$$