

۲۰

نام و نام خانوادگی: کلاس: شماره: ۱۲ تکلیف شماره: ۱۲ تاریخ:
پاسخنامه:
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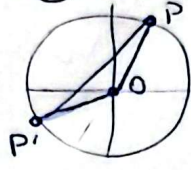
$$\begin{aligned} a \sin \frac{\pi}{6} &= \frac{\sqrt{3}}{2} \times a \\ b \cos \frac{\pi}{4} &= \frac{\sqrt{2}}{2} \times b \\ a \sin \frac{11\pi}{4} &= -\frac{1}{2} \times a \\ b \cos \frac{\pi}{6} &= \frac{1}{2} \times b \end{aligned}$$

$$\tan \frac{\pi}{4} = \frac{-\sqrt{3}}{2} = \frac{\sqrt{3}a + \sqrt{2}b}{a - b} \rightarrow \frac{1}{\sqrt{3}} = \frac{\sqrt{3}a + \sqrt{2}b}{b - a}$$

$$\rightarrow b - a = \sqrt{3}a + \sqrt{2}b \rightarrow \Sigma a = -\sqrt{2}b \rightarrow \frac{b}{a} = -\sqrt{2}$$

دایره یکتا $\rightarrow (\cos, \sin) \rightarrow \cos P = \frac{1}{2} \rightarrow P = 60^\circ$ و $\sin P = \frac{\sqrt{3}}{2}$

دایره $10^\circ \rightarrow 10^\circ + 40^\circ = 50^\circ$



$$PP' = PR \sin \frac{\pi}{6} \rightarrow 2 \times \sin 10^\circ = PP'$$

$$\rightarrow \sin(50^\circ) = \sin 50^\circ \cos 10^\circ + \cos 50^\circ \sin 10^\circ \rightarrow \frac{\sqrt{3}}{2} \times \frac{\sqrt{2}}{2} + \frac{1}{2} \times \frac{1}{2} = \frac{\sqrt{6} + \sqrt{2}}{4}$$

$\frac{\pi}{4} \times \frac{11\pi}{4} = 10^\circ \rightarrow$ درجه یکتا $10^\circ \rightarrow 40^\circ \rightarrow 50^\circ$

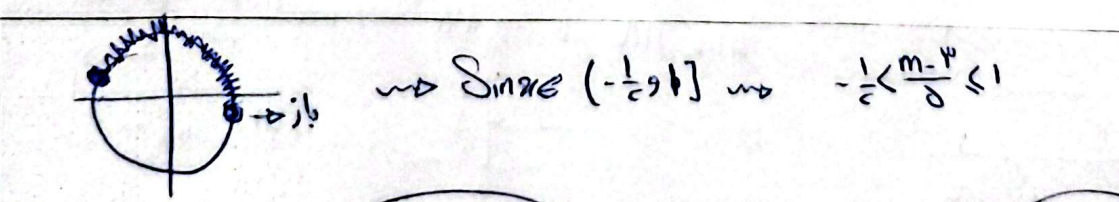
$\rightarrow \Sigma$ دقیقه $\rightarrow$ ساعت $(2:50)$

$$a = \left| \frac{11\mu}{2} - 30H \right|$$

ساعت $1 \rightarrow 9^\circ \rightarrow$ 2 دقیقه 10°

$$\rightarrow \text{ساعت } 2 \text{ دقیقه } 10^\circ \rightarrow 10^\circ = \left| \frac{11\mu}{2} - 90 \right|$$

$$\rightarrow \frac{11\mu}{2} = 7 \rightarrow \mu = \frac{14}{11} \rightarrow \frac{11\mu}{2} = 7 \rightarrow \mu = 10^\circ$$



$$\rightarrow \frac{1}{2} < m \leq 1 \rightarrow m = \{1, 2, 3, 4, 5, 6, 7, 8, 9, 10\} \rightarrow \phi(m) = 1$$

$$\mu = \frac{\sin(90+10) + k \cos(170-10)}{\cos(110-10) + \mu \sin(110+10)} = \frac{\cos 10^\circ + k \sin 10^\circ}{-\cos 10^\circ + \mu \sin 10^\circ}$$

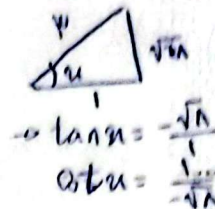
$$\xrightarrow{\cos 10^\circ \approx \frac{1}{2}} \quad \frac{1 - \frac{k}{2} = \mu}{-1 - \frac{\mu}{2}} \rightarrow \frac{k-2}{2} = \mu \rightarrow \frac{k-2}{2} = \frac{k-2}{1} \rightarrow k = \frac{2}{\mu}$$

$$\frac{1 - \cos \alpha}{1 + \cos \alpha} = \mu \rightarrow 1 - \cos \alpha = \mu + \mu \cos \alpha \rightarrow 1 = -\mu \cos \alpha \rightarrow \cos \alpha = -\frac{1}{\mu}$$

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

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

$$= \frac{\mu \cot \alpha}{-\tan \alpha} = -\mu \cot^2 \alpha = -\frac{1}{\mu}$$



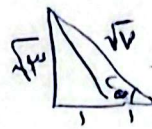
$$\tan \alpha = \frac{1}{1} = 1$$

$$\frac{1}{10} \times \frac{\pi}{10} \times R_A = \frac{9}{1} \times R_B \rightarrow \frac{1}{10} R_A = \frac{9}{1} R_B \rightarrow \mu R_A = \mu R_B$$

$$\rightarrow \frac{R_A}{R_B} = \frac{9}{1} \rightarrow \frac{\pi R_A}{\pi R_B} = \frac{9}{1}$$

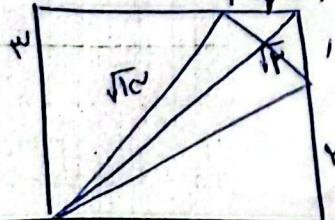
$$\cot 45^\circ = \sqrt{2} \rightarrow \frac{AB}{BD} = AB = \sqrt{2} \rightarrow \frac{AB \times BC}{\sqrt{2}} = \sqrt{2} \rightarrow \sqrt{2} BC = 2\sqrt{2}$$

$$\rightarrow BC = 2 = BD + DC \rightarrow DC = 1 \rightarrow \sin C = \mu \sin B \cos C$$

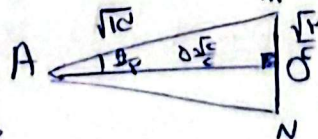


$$= 2 \times \frac{\sqrt{2}}{\sqrt{2}} \times \frac{1}{\sqrt{2}} = \frac{2\sqrt{2}}{\sqrt{2}}$$

به ۲۰۰ میلی متر در یک خط عمود بر یکدیگر
مستوی الساقین است به طریقی
اثبات کنیم



$$\rightarrow AM = AN \rightarrow \text{مربع } MN \text{ بر } AC \text{ عمود است}$$



$$\rightarrow \sin\left(\frac{\pi}{2}\right) \mu \sin \frac{\pi}{2} \cos \frac{\pi}{2}$$

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

$$13 = \frac{1}{2} + AO^2 \rightarrow AO = \frac{13}{2} = AO^2 = \frac{5\sqrt{2}}{2}$$

این مسئله از جدول
مسئله مسلمانان حل می شود
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