

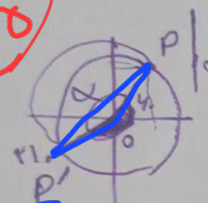
۱۳۱۵

نام و نام خانوادگی پاشنامه تشریحی تکلیف شماره کلاس

$$\frac{a \sin(\pi + \frac{\pi}{4}) + b \cos(\pi + \frac{\pi}{4})}{a \sin(\pi - \frac{\pi}{4}) + b \cos(\pi - \frac{\pi}{4})} = \frac{-a \sin(\frac{\pi}{4}) - b \cos(\frac{\pi}{4})}{-a \sin(\frac{\pi}{4}) + b \cos(\frac{\pi}{4})} = \tan \frac{5\pi}{4}$$

$$\cos(\frac{\pi}{4}) = \sin(\frac{\pi}{4}) \Rightarrow \frac{-a-b(\sin \frac{\pi}{4})}{-a+b(\cos \frac{\pi}{4})} = \tan \frac{5\pi}{4} \Rightarrow \frac{-a-b}{-a+b} (\tan \frac{\pi}{4}) = \tan(\frac{5\pi}{4})$$

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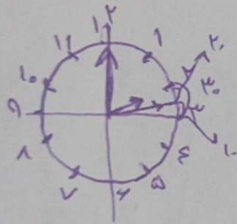


$$\frac{4}{r} R^2 = \left(\frac{\frac{5\pi}{4}}{\frac{r}{1}} \times 1 \right) = \frac{5\pi}{12}$$

$$PP' = \sqrt{(\frac{\sqrt{2}}{2} - (-\frac{1}{2}))^2 + (\frac{1}{2} - (-\frac{\sqrt{2}}{2}))^2} = \sqrt{2 + \sqrt{2}}$$

$$140 - 210 = 150 \Rightarrow \frac{5\pi}{4} \quad R=1$$

$$\text{مسافت} = 1 + 1 + \sqrt{2 + \sqrt{2}} = 2 + \sqrt{2 + \sqrt{2}}$$



$$\frac{\pi}{9} = \frac{180}{9} = 20^\circ$$

میزان جابجایی عقربه ساعت شمار = نصف مقدار رقیقه
رقبه ۲۰ = ۲۰ رقیقه

$$\text{ساعت} \rightarrow 2:40'$$

$$\alpha = \left| \frac{11M - 20H}{2} \right| \Rightarrow \frac{11M - 90}{2} = 20 \Rightarrow 11M - 90 = 40 \Rightarrow 11M = 130 \Rightarrow M = 11.81$$

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$$\frac{11M - 90}{2} = -20 \Rightarrow 11M - 90 = -40 \Rightarrow 11M = 50 \Rightarrow M = 4.54$$

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$$\sin \frac{\pi}{4} = 1$$

$$\frac{m-3}{5} = 1 \Rightarrow m-3 = 5 \Rightarrow m = 8$$

$$\frac{m-3}{5} = -\frac{1}{5} \Rightarrow m-3 = -1 \Rightarrow m = 2$$

$$-\frac{\pi}{4} < x < \frac{5\pi}{4}$$

$$m = [0, 5, 1]$$

فرد غازی

$$\frac{\sin(100^\circ) + k \cos(180^\circ)}{\cos(190^\circ) + \gamma \sin(190^\circ)} = \gamma \Rightarrow \frac{\sin(\frac{\pi}{2} + 10) + k \cos(\frac{\pi}{2} - 10)}{\cos(\pi - 10) + \gamma \sin(\pi + 10)} = \gamma$$

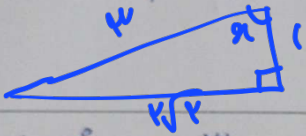
$$\frac{\gamma \sin 10}{\cos 10} = \gamma \Rightarrow \gamma \sin 10 = \cos 10$$

$$\frac{\sin 10}{\cos 10} = \frac{1}{\gamma} \Rightarrow \gamma \sin 10 = \cos 10$$

$$\boxed{k = \gamma \gamma}$$

$$\frac{1 - \cos \alpha}{1 + \cos \alpha} = \gamma \Rightarrow \gamma + \gamma \cos \alpha = 1 - \cos \alpha \Rightarrow \gamma \cos \alpha = -1 \Rightarrow \cos \alpha = -\frac{1}{\gamma}$$

$$\frac{\tan(\frac{\pi}{2} - \alpha) - \cot(\pi - \alpha)}{\cot(\frac{\pi}{2} - \alpha) + \gamma \tan(\pi - \alpha)} = \frac{\cot(\alpha) + \cot(\alpha)}{\tan \alpha - \gamma \tan(\alpha)} = \frac{\gamma \cot(\alpha)}{-\tan \alpha} = -\gamma \cot^2(\alpha) = -\frac{1}{\gamma}$$



$$\cot \alpha = \frac{1}{\sqrt{k}}$$

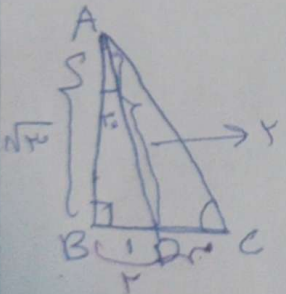
$$= -\gamma \cot^2(\alpha) = -\frac{1}{\gamma}$$

$$10^\circ \Rightarrow \frac{\mu}{\omega} \pi \quad \alpha_1 R_1 = \alpha_2 R_2 \Rightarrow \frac{\mu}{\omega} \pi R_1 = \frac{4\pi}{10} R_2$$

$$\frac{R_1}{R_2} = \frac{4}{10} \pi = \left(\frac{4}{10} \right) \frac{\pi}{\omega} = \frac{\mu}{\gamma} = 1.6$$

$$\frac{S_1}{S_2} = \frac{\pi(R_1)^2}{\pi(R_2)^2} = \frac{(1.6 R_2)^2}{R_2^2} = 2.56$$

$$\boxed{R_1 = 1.6 R_2}$$

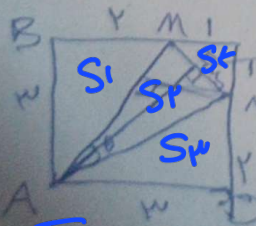


$$\sqrt{(\mu)^2 + (1)^2} = \sqrt{\mu^2 + 1} \quad AC = \sqrt{(\mu)^2 + (1)^2} = \sqrt{\mu^2 + 1} = \sqrt{\mu^2 + 1}$$

$$S = \frac{AB \times BC}{2} \Rightarrow \sqrt{\mu^2 + 1} = \frac{\sqrt{\mu^2 + 1} \times BC}{2} \Rightarrow BC = 2$$

$$\sin C = \frac{\mu}{\sqrt{\mu^2 + 1}} \quad \cos C = \frac{1}{\sqrt{\mu^2 + 1}} \quad \sin^2 C = \mu^2 \sin^2 C \cos^2 C$$

$$\mu \times \frac{\mu}{\sqrt{\mu^2 + 1}} \times \frac{1}{\sqrt{\mu^2 + 1}} = \frac{\mu^2}{\mu^2 + 1}$$



$$MN = \sqrt{(1)^2 + (1)^2} = \sqrt{2}$$

$$AM = AN = \sqrt{(\mu)^2 + (1)^2} = \sqrt{\mu^2 + 1} = \sqrt{\mu^2 + 1}$$

$$\sqrt{(\mu)^2 + (1)^2} - \left(\frac{\mu}{\gamma} \right)^2 = \sqrt{\mu^2 + 1} - \frac{1}{\gamma} = \sqrt{\mu^2 + 1} = AH$$

$$\gamma = \frac{1}{\mu} \times \sqrt{\mu^2 + 1} \times \sqrt{\mu^2 + 1} \sin \theta$$

$$\boxed{\sin \theta = \frac{1}{\mu}}$$

$$\sqrt{\mu^2 + 1} \times \frac{\mu}{\gamma} \times \frac{1}{\gamma} = \sqrt{\mu^2 + 1} \times \frac{\mu}{\gamma} \times \frac{1}{\gamma} \sin \theta$$

$$\frac{\mu}{\gamma} = \mu \sin \theta \Rightarrow \gamma = \frac{1}{\mu \sin \theta}$$

$$\sin \theta = 0.14$$

$$S_4 = \mu_0$$

$$S_{\text{total}} = S_1 + S_2 + S_3 + S_4 \rightarrow 9 = \mu + \mu + \frac{1}{\mu} + S_4$$