

کتابخانه

(A) (ب) (ج)

بازرسی

$$y = \tan\left(-\mu + \frac{\mu}{\varepsilon}\right) \rightarrow AC = \text{مقدار} = \frac{\mu}{1b} = \frac{\mu}{\mu}$$

$$B(0, y) \rightarrow y = \tan \frac{\mu}{\varepsilon} \rightarrow y = 1 \rightarrow B(0, 1)$$

$$S_{ABC} = \frac{AC \times BO}{2} = \frac{\frac{\mu}{\mu} \times 1}{2} = \frac{\mu}{\varepsilon}$$

$$\mu - (\sin \alpha) \mu - \frac{1}{\varepsilon} \underbrace{(\cos^2 \alpha)}_{1 - \sin^2 \alpha} = 0 \xrightarrow{\mu = \frac{\mu}{\mu}} \frac{\mu}{q} - \frac{\mu}{\mu} \sin \alpha - \frac{1}{\mu} + \frac{1}{\varepsilon} \sin^2 \alpha = 0$$

$$\frac{1}{\varepsilon} \sin^2 \alpha - \frac{\mu}{\mu} \sin \alpha + \frac{V}{\mu q} \rightarrow \frac{-b \pm \sqrt{b^2 - 4ac}}{2a} \rightarrow \frac{\frac{\mu}{\mu} \pm \sqrt{\frac{\mu}{q} - \frac{V}{\mu q}}}{\frac{1}{\mu}}$$

$$\rightarrow \frac{\frac{\mu}{\mu} \pm \sqrt{\frac{q}{\mu q}}}{\frac{1}{\mu}} \rightarrow \frac{\frac{\mu}{\mu} + \frac{\mu}{\mu}}{\frac{1}{\mu}} = \frac{V}{\mu}$$

$$\frac{\frac{\mu}{\mu} - \frac{\mu}{\mu}}{\frac{1}{\mu}} = \frac{1}{\mu}$$

$$\sin \alpha = \frac{1}{\mu} \rightarrow \tan \alpha = \frac{1}{\sqrt{1}}$$

$$\frac{V}{\mu} \rightarrow \frac{1}{\mu}$$

$$\tan^2 \alpha + 1 = \frac{1}{1} + 1 = \left(\frac{q}{1}\right)$$

$$\log(\sin \alpha) - \log(-\cos \alpha) = \log \mu \rightarrow \log \frac{\sin \alpha}{-\cos \alpha} = \mu \rightarrow \tan \alpha = -\mu, \quad -\mu$$

$$\rightarrow \tan \alpha = -\mu \rightarrow \tan^2 \alpha + 1 = \frac{1}{\cos^2 \alpha} \rightarrow \cos^2 \alpha = \frac{1}{10} \rightarrow \log_a \rightarrow a > 0 \rightarrow$$

$$\rightarrow \frac{\sin \alpha}{-\cos \alpha} > 0 \rightarrow \tan \alpha < 0, \sin \alpha > 0, -\cos \alpha > 0 \rightarrow \cos \alpha < 0$$

$$\cos^2 \alpha = \frac{1}{10} \rightarrow \cos \alpha = -\frac{1}{\sqrt{10}} \rightarrow \begin{array}{c} \mu \\ \swarrow \\ \text{triangle} \\ \searrow \\ 1 \end{array} \rightarrow \sin \alpha = \frac{\mu}{\sqrt{10}}$$

$$\sin \alpha - \cos \alpha = \frac{\mu}{\sqrt{10}} + \frac{1}{\sqrt{10}} = \frac{\epsilon}{\sqrt{10}} \times \frac{\sqrt{10}}{\sqrt{10}} = \frac{\epsilon \sqrt{10}}{10} + \frac{2\sqrt{10}}{10}$$

$$\sin^2 \theta + \cos^2 \theta = \frac{\epsilon}{\omega} \quad \cos^2 \theta = 1 - \sin^2 \theta \rightarrow \sin^2 \theta - \sin^2 \theta + 1 = \frac{\epsilon}{\omega} \quad -\epsilon$$

$$\sin^2 \theta = a \rightarrow a^r - a + \frac{1}{\omega} = 0 \rightarrow \cos^2 \theta + \sin^2 \theta = (1-a)^r + a$$

$$\rightarrow (1-a)^r + a = 1 - r a + a^r + a = a^r - a + 1 = \frac{\epsilon}{\omega}$$

$$\frac{\mu \sin \alpha + \sin \alpha \cos \alpha}{\mu - \mu \cos^2 \alpha} < 0 \rightarrow \frac{\sin \alpha (\mu + \cos \alpha)}{\mu (1 - \cos^2 \alpha)} < 0 \rightarrow -\omega$$

$$\rightarrow \frac{\mu + \cos \alpha}{\mu \sin \alpha} < 0 \rightarrow \sin \alpha < 0, \sin \alpha \tan \alpha = \frac{1}{\cos \alpha} < 0 \rightarrow$$

$$\rightarrow \frac{\sin^2 \alpha - 1}{\cos \alpha} > 0 \rightarrow \cos \alpha < 0 \rightarrow \sin \alpha < 0, \cos \alpha < 0$$

$$\frac{P}{\sin u} + \frac{\mu}{\cos u} = 0 \rightarrow \frac{P \cos u + \mu \sin u}{\sin u \cos u} = 0 \rightarrow P \cos u + \mu \sin u = 0 \quad \text{--- 4}$$

$$\rightarrow \mu \sin u = -P \cos u \rightarrow \frac{\sin u}{\cos u} = -\frac{P}{\mu} \rightarrow \tan u = -\frac{P}{\mu}, \cot u = -\frac{\mu}{P}$$

$$\tan u + \cot u = -\frac{P}{\mu} - \frac{\mu}{P} = \frac{-P - \mu}{4} = \frac{-11\mu}{4}$$

$$\frac{\sqrt{1 + \sin 2\omega}}{\sin \omega_0 + \sin \omega_1} \xrightarrow[\sin \omega_0 = P \sin P_0 \cos P_0]{\sin 2\omega = P \sin P_0 \cos P_0} \frac{\sqrt{\sin^2 P_0 + \cos^2 P_0 + P \sin P_0 \cos P_0}}{\sin(P_0 + P_1) + \sin(P_0 - P_1)} \quad \checkmark$$

$$= \frac{\sqrt{(\sin P_0 + \cos P_0)^2}}{\sin P_0 \cos P_0 + \sin P_0 \cos P_0 + \sin P_0 \cos P_0 - \sin P_0 \cos P_0} \quad \checkmark$$

$$\frac{\sin P_0 + \cos P_0}{P \sin P_0 \cos P_0} \xrightarrow[\frac{a}{|a|} \sqrt{a^2 + b^2} \sin(u + \alpha)]{\tan \alpha = \frac{b}{a} \rightarrow \alpha = \tan^{-1} \frac{b}{a}} \frac{\sqrt{P^2} \sin(P_0 + \tan^{-1} \frac{P}{1})}{P \sin P_0 \cos P_0}$$

$$\rightarrow \frac{\sqrt{P} \sin P_0}{P \times \frac{1}{P} \times \sin P_0} = \sqrt{P}$$

$$(1 - \mu \sin^2 \omega)(\mu \cos^2 \theta - 1) \left(\frac{1 - \tan^2 \theta_0}{1 + \tan^2 \theta_0} \right)$$

✓

$$(1 - \mu \sin^2 \omega)(1 - \mu \sin^2 \omega) = 1 - \mu + \mu \cos^2 \omega = \mu \cos^2 \omega - 1 = 1 + \cos 10 - 1 = \cos 10^\circ$$

$$\frac{1 - \tan^2 \theta_0}{1 + \tan^2 \theta_0} \rightarrow \cos 2\alpha = \frac{1 - \tan^2 \alpha}{1 + \tan^2 \alpha} \rightarrow \frac{1 - \tan^2 \theta_0}{1 + \tan^2 \theta_0} = \cos 2\epsilon_0$$

$$\mu \cos^2 \theta_0 - 1 \rightarrow 1 + \cos 2\theta_0 - 1 = \cos 2\theta_0$$

✓

$$\cos 10 \times \cos 10 \times \cos 50 \times \frac{\sin 10}{\sin 10} = \frac{1}{\mu} \sin 10 \cos 10 \cos 50 =$$

$$= \frac{1}{\mu} \sin 50 \cos 50 = \frac{1}{\mu} \sin 10 \quad \frac{\sin 10 = \cos 10}{\sin 10} \rightarrow \frac{1}{\mu} \frac{\cos 10}{\sin 10} = \frac{1}{\mu} \cot 10$$

$$\sin \alpha + \mu \cos \alpha = \mu \quad \sin \alpha = \sqrt{1 - \cos^2 \alpha} \rightarrow \sqrt{1 - \cos^2 \alpha} + \mu \cos \alpha = \mu$$

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$$\sqrt{1 - \cos^2 \alpha} = \mu - \mu \cos \alpha \quad \text{Square both sides} \rightarrow 1 - \cos^2 \alpha = \mu^2 + \mu^2 \cos^2 \alpha - 2\mu^2 \cos \alpha$$

$$\rightarrow 10 \cos^2 \alpha - 10 \cos \alpha + \mu^2 = 0$$

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$$10 \cos^2 \alpha - 10 \cos \alpha \quad \cos 2\alpha = \cos^2 \alpha - 1 \rightarrow 10(\cos^2 \alpha - 1) - 10 \cos \alpha \rightarrow$$

$$\rightarrow 10 \cos^2 \alpha - 10 \cos \alpha - 10 = -10$$

dn

$$\sin \hat{B} \sin \hat{C} = \cos \frac{A}{r}, \quad \hat{B} = 114^\circ \quad \hat{A} = ?$$

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فرض $\hat{A} = ?$

$$\sin B \sin C = \frac{1}{r} (\cos(B-C) + \cos A) = \frac{1 + \cos A}{r}$$

$$\cos(B-C) = 1 \quad B-C=0 \rightarrow B=C=114^\circ$$

$$\hat{A} + \hat{B} + \hat{C} = 180 \rightarrow \hat{A} = 180 - 114 - 114 = 52^\circ$$

● dotnote

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