

نام و نام خانوادگی: کلاس: شماره: پاسخنامه تشریحی تکلیف شماره ۱۸۱
 سوالات تلف ساده بود اگر با وجود وقت گذاشتن باز هم اشکال دارید ایم رفع اشکال کنید!

$$\left. \begin{aligned} T &= \frac{\pi}{16} \Rightarrow \frac{\pi}{2} \Rightarrow AC = \frac{\pi}{2} \\ B &= \left(\frac{\pi}{2}\right) \Rightarrow \gamma & \left(\frac{\pi}{2} \right) \end{aligned} \right\} \Rightarrow \frac{\gamma \times AC}{2} = \frac{\pi}{2}$$

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$$\begin{aligned} a_1 &= \frac{2}{3} \Rightarrow \frac{2}{3} - \frac{2}{3} \cos \alpha - \frac{1}{3} \sin^2 \alpha = 0 \\ \cos^2 \alpha - 2 &= 2 \cos^2 \alpha - 4 \cos \alpha - \cos^2 \alpha + 2 \cos^2 \alpha - \frac{1}{3} \cos^2 \alpha \\ &+ 2 \cos \alpha + \frac{1}{3} \sin^2 \alpha = 0 \end{aligned}$$

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$$\log \frac{\sin \alpha}{\cos \alpha} = \log 3 \Rightarrow \log(\sin \alpha) \rightarrow \sin \alpha > 0 \\ \log(-\cos \alpha) \rightarrow -\cos \alpha > 0 \rightarrow \cos \alpha < 0$$

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$$\log \left(\frac{\sin \alpha}{-\cos \alpha} \right) = \log 3 \Rightarrow -\tan \alpha = 3 \Rightarrow \tan \alpha = -3$$

$\sin \alpha = \frac{3}{\sqrt{10}}, \cos \alpha = -\frac{1}{\sqrt{10}} \Rightarrow \sin \alpha - \cos \alpha = \frac{3}{\sqrt{10}} - \left(-\frac{1}{\sqrt{10}}\right) = \frac{4}{\sqrt{10}}$

$$\begin{aligned} \sin^2 \theta + \cos^2 \theta &= \frac{4}{9} \Rightarrow (1 - \cos^2 \theta) + \cos^2 \theta = \frac{4}{9} \Rightarrow \cos^2 \theta - \cos^2 \theta + 1 = \frac{4}{9} \\ \cos^2 \theta - 1 + \sin^2 \theta + 1 &= \frac{4}{9} \Rightarrow \cos^2 \theta + \sin^2 \theta = \frac{4}{9} \end{aligned}$$

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$$\frac{2 \cos^2 \alpha + \cos \alpha}{2 \cos^2 \alpha} = \frac{2}{2 \cos^2 \alpha} + \frac{\cos \alpha}{2 \cos^2 \alpha} = \frac{2 + \cos \alpha}{2 \cos^2 \alpha}$$

$$\frac{\cos^2 \alpha - 1}{\cos^2 \alpha} = \frac{-\cos^2 \alpha}{\cos^2 \alpha} = -(\cos \alpha) = 0 \Rightarrow \cos \alpha < 0$$

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$$\frac{\omega^2}{c^2} + \frac{\cos^2 \alpha}{\omega^2} = \frac{r}{c^2} = \frac{r}{r \omega^2 \sin \alpha} \rightarrow \frac{r}{r \omega^2 \sin \alpha} = \frac{-r}{r^2 \omega^2} = \frac{-r}{r^2} = -\frac{r}{r^2} = -\frac{1}{r}$$

1,0

$$\frac{r \omega^2 + r \cos \alpha}{\omega^2 \sin \alpha} = 0 \rightarrow r \omega^2 + r \cos \alpha = 0 \rightarrow r \cos \alpha = -r \omega^2$$

$$\Rightarrow \frac{-r}{r} \cos \alpha = \cos \alpha$$

$$\omega^2 + \frac{1}{r} \cos \alpha = 1$$

$$\frac{1}{r} \cos \alpha = 1 - \omega^2 \Rightarrow \cos \alpha = \frac{r \sqrt{1 - \omega^2}}{1}$$

$$-r \tan \alpha = r \rightarrow \tan \alpha = -\frac{r}{r} \rightarrow \cot \alpha = -\frac{r}{r}$$

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

$$\sqrt{1 + \sin^2 \alpha} = \sqrt{1 + \cos^2 \alpha} \xrightarrow{\text{فرم ساده}} \sqrt{r^2 \cos^2 \alpha} = r |\cos \alpha| = r \cos \alpha$$

$$\sin \alpha + \sin \alpha = \sin(\alpha + \alpha) + \sin(\alpha - \alpha) =$$

$$\sin \alpha \cos \alpha + \sin \alpha \cos \alpha + \sin \alpha \cos \alpha - \sin \alpha \cos \alpha = r \left(\frac{1}{r}\right) \cos \alpha = \cos \alpha$$

$$\frac{r \cos \alpha}{\cos \alpha} = \boxed{r}$$

$$\frac{(1 - \frac{r}{c})}{\cos \alpha} \cdot \frac{(1 + \frac{r}{c})}{\cos \alpha} = \frac{(1 - \frac{r}{c})}{\cos \alpha} \cdot \frac{(1 + \frac{r}{c})}{\cos \alpha}$$

$$\cos \alpha \cdot \left(\frac{1 - \frac{r}{c}}{\cos \alpha} + \frac{1 + \frac{r}{c}}{\cos \alpha} \right) = \cos \alpha \cdot \left(\frac{1 - \frac{r}{c} + 1 + \frac{r}{c}}{\cos \alpha} \right) = \cos \alpha \cdot \left(\frac{2}{\cos \alpha} \right) = 2$$

$$\frac{r^2 - \omega^2}{\cos \alpha} = \frac{(r^2 - \omega^2)^2 - r^2 \omega^2}{1}$$

1

$$\omega^2 + 9 \cos^2 \alpha + 5 \cos \alpha = 1$$

$$1 + 1 \cos^2 \alpha + 5 \cos \alpha = 1$$

$$\cos \alpha (1 \cos \alpha + 5) = 0$$

$$\sin \alpha + r \cos \alpha = r \rightarrow \sin \alpha = r - r \cos \alpha \xrightarrow{\text{مربع}} \sin^2 \alpha = (r - r \cos \alpha)^2$$

$$1 - \cos^2 \alpha = r^2 \cos^2 \alpha + r^2 - 2r^2 \cos \alpha \rightarrow 1 - \cos^2 \alpha - r^2 \cos^2 \alpha + 2r^2 \cos \alpha - r^2 = 0$$

$$1 - (1 + r^2 \cos^2 \alpha) - r^2 \cos^2 \alpha + 2r^2 \cos \alpha - r^2 = 0$$

$$2r^2 \cos \alpha - r^2 \cos^2 \alpha = \boxed{-1}$$

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

$$1 + \cos(\pi - (B + C)) = 1 - \cos(B + C) = r \sin \alpha \sin \alpha$$

$$1 - \cos B \cos C + \sin B \sin C = r \sin \alpha \sin \alpha \rightarrow \sin B \sin C + \cos B \cos C = 1$$

$$\cos(B - C) = 1 \rightarrow B - C = 0$$

$$B - C = 0 \rightarrow B = C \rightarrow A = 180^\circ - 180^\circ = 0^\circ$$

$$B + C = 180^\circ \quad (r = r)$$

0

1

$$x = \frac{r}{r} \rightarrow \left(\frac{r}{r}\right)^2 - \frac{r}{r} \sin \alpha - \frac{c \cdot s^2 \alpha}{r} = \dots$$

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$$\frac{r}{q} - \frac{r}{q} \sin \alpha - \frac{(1 - \sin^2 \alpha)}{\varepsilon} = \dots \rightarrow \frac{q \sin^2 \alpha - q - r \varepsilon \sin \alpha + 14}{44} = \dots$$

$$q \sin^2 \alpha - r \varepsilon \sin \alpha + 14 = \dots \xrightarrow{\text{cos}} \sin^2 \alpha - r \varepsilon \sin \alpha + 14 = \dots$$

$$(\sin \alpha - r) (\sin \alpha - r) = \dots \rightarrow \sin \alpha = \frac{1}{r} \text{ بـ } \frac{r}{r}$$

$$\sin \alpha = \frac{1}{r} \rightarrow c \cdot s^2 \alpha = 1 - \frac{1}{r} = \frac{1}{r}$$

$$1 + \tan^2 \alpha = \frac{1}{c \cdot s^2 \alpha} = \frac{1}{\frac{1}{r}} = \boxed{\frac{r}{1}}$$

$$1 - r \sin^2 \alpha = c \cdot s^2 \alpha$$

$$r c \cdot s^2 \alpha - 1 = c \cdot s^2 \alpha$$

فرمات

$$\frac{1 - \tan^2 r}{1 + \tan^2 r} = \dots$$

$$c(2x) = c \varepsilon$$

$$\frac{c \cdot s^2 r - \sin^2 r}{c \cdot s^2 r + \sin^2 r} = c \cdot s^2 \varepsilon$$

سوال 1

$$(8110) \underbrace{c \cdot s^2 \alpha}_{\frac{1}{r}} \times c \cdot s^2 \varepsilon \times c \cdot s^2 \varepsilon =$$

$$\frac{1}{r} \sin r \times c \cdot s^2 \varepsilon \times c \cdot s^2 \varepsilon$$

$$\frac{1}{r} \times \frac{1}{r} \sin \varepsilon \times c \cdot s^2 \varepsilon =$$

$$\frac{1}{r} \times \frac{1}{r} \times \frac{1}{r} \sin \alpha = \frac{\frac{1}{r} \sin \alpha}{\sin \alpha} = \frac{1}{r} \cot \alpha$$