

$T = \frac{\pi}{101} \leq \frac{\pi}{4} \Rightarrow C \leq \frac{\pi}{4} \text{ و } \alpha \leq -\frac{\pi}{4}$ $B = \tan \frac{\pi}{4} = 1$ $S = \frac{1 \times \frac{\pi}{4}}{2} = \frac{\pi}{8}$	۱
$\frac{4}{9} - \frac{4}{9} \sin \alpha - \frac{1}{9} \cos^2 \alpha = 0$ $\frac{1}{9} \cos^2 \alpha + \frac{4}{9} \sin \alpha - \frac{4}{9} = 0 \quad \times 9 \rightarrow 1 - \sin^2 \alpha + 4 \sin \alpha - 4 = 0$ $- \sin^2 \alpha + 4 \sin \alpha - 3 = 0$ $b^2 - 4ac = \Delta = 16 - 12 = 4 \Rightarrow \frac{4 \pm 2}{2} = \frac{6}{2} = 3 \text{ و } \frac{2}{2} = 1$ $1 + \tan^2 \alpha = \frac{1}{\cos^2 \alpha} = \frac{9}{1}$ $\text{ریشه های } \alpha: \frac{-4 \pm 2}{-2} = \frac{-6}{-2} = 3, \frac{-2}{-2} = 1 \Rightarrow \sin \alpha = \frac{1}{3} \Rightarrow \cos^2 \alpha = \frac{8}{9}$	۲
$- \tan \alpha = 3 \Rightarrow \tan \alpha = -3 \Rightarrow 1 + 9 = \frac{1}{\cos^2 \alpha} \Rightarrow \cos \alpha = \frac{\sqrt{10}}{10} \Rightarrow \sin \alpha = \frac{\sqrt{90}}{10} = \frac{3\sqrt{10}}{10}$ $\sin \alpha - \cos \alpha = \frac{3\sqrt{10}}{10} - \frac{\sqrt{10}}{10} = \frac{2\sqrt{10}}{10} = \frac{\sqrt{10}}{5}$	۳
$(1 - \cos^2 \alpha) + \cos^2 \alpha = \frac{4}{9} \Rightarrow \cos^2 \alpha - \cos^2 \alpha + 1 = \frac{4}{9} \Rightarrow \cos^2 \alpha + \sin^2 \alpha = \frac{4}{9}$	۴
$\frac{\sin^2 \alpha - 1}{\cos \alpha} > 0 \Rightarrow \frac{-\cos^2 \alpha}{\cos \alpha} > 0 \Rightarrow \frac{\cos \alpha}{1} < 0$ $\sin \alpha (3 + \cos \alpha) < 0 \Rightarrow \sin \alpha < 0$ $\frac{3 - 2\cos^2 \alpha}{\cos \alpha} < 0 \Rightarrow \sin \alpha < 0$ $\left. \begin{array}{l} \cos \alpha < 0 \\ \sin \alpha < 0 \end{array} \right\} \rightarrow \text{ناحیه سوم}$	۵

$$\frac{y}{\sin m} = \frac{-r}{\cos m} = r \tan s = \frac{r}{\tan s}$$

$$\frac{-x}{x} - \frac{x}{x} = \frac{-13}{4}$$

$$\frac{\sin \theta + \cos \theta}{\sin(\theta + \pi) + \sin(\theta - \pi)} = \frac{\sqrt{r} \sin(\theta + \pi)}{\frac{\sqrt{r}}{r} \sin \theta + \frac{1}{r} \cos \theta + \frac{1}{r} \cos \theta - \frac{\sqrt{r}}{r} \sin \theta} = \frac{\sqrt{r} \sin \theta}{\cancel{\cos \theta} + \sin \theta}$$

$$\frac{\frac{1}{\lambda} \sin \lambda}{\sin \lambda} = \frac{1}{\lambda} \sin \lambda$$

$$\begin{aligned} \sin \alpha &= r \cos \alpha \xrightarrow{\text{multi}} \sin \alpha = 9 \cos^2 \alpha - 12 \cos \alpha + 1 \\ \sin \alpha + \cos^2 \alpha &= 1 \Rightarrow \underline{10 \cos^2 \alpha - 12 \cos \alpha + 1 = 0} \\ 10 \cos^2 \alpha - 12 \cos \alpha + 1 &= 0 \quad \text{---} \\ 10 \cos^2 \alpha - 12 \cos \alpha + 1 &= 0 \quad \text{---} \end{aligned}$$

ببخشید راه حریف نری ام برای این سوال حریف همون میسم. بام بنویسید