

نام و نام خانوادگی ۱۷, ۷۵ پاسخنامه تشریحی تکلیف شماره ۱۱۰ کلاس ۱۷, ۷۵ B. ...

$$T = \frac{\pi}{101} \leq \frac{\pi}{4} \Rightarrow C \leq \frac{\pi}{4} \text{ و } \alpha \leq -\frac{\pi}{4}$$

$$B = \tan \frac{\pi}{4} \leq 1$$

$$S = \frac{1 \times \frac{\pi}{4}}{2} = \frac{\pi}{8}$$

$$\frac{1}{4} - \frac{1}{4} \sin \alpha - \frac{1}{4} \cos^2 \alpha = 0$$

$$\frac{1}{4} \cos^2 \alpha + \frac{1}{4} \sin \alpha - \frac{1}{4} = 0 \xrightarrow{\times 4} 1 - \sin^2 \alpha + \sin \alpha - \frac{1}{4} = 0$$

$$1 + \tan^2 \alpha \cdot \frac{1}{\cos^2 \alpha} = \frac{9}{1} \quad \checkmark$$

$$- \sin^2 \alpha + \sin \alpha - \frac{1}{4} = 0$$

$$b^2 - 4ac = \Delta = \frac{1}{4} - \frac{1}{4} = 0$$

$$\text{ریشه های مساوی: } \frac{-\frac{1}{2} \pm \sqrt{0}}{-2} = \frac{1}{4} \Rightarrow \sin \alpha = \frac{1}{4} \Rightarrow \cos^2 \alpha = \frac{15}{16}$$

$$- \tan \alpha \leq 3 \Rightarrow \tan \alpha \geq -3 \Rightarrow 1 + 9 \cdot \frac{1}{\cos^2 \alpha} \geq \cos^2 \alpha \cdot \frac{1}{1} \Rightarrow \sin \alpha \geq \frac{\sqrt{9}}{1} = \frac{3\sqrt{1}}{1}$$

$$\sin \alpha - \cos \alpha \leq \frac{3\sqrt{1}}{1} + \frac{\sqrt{1}}{1} \leq \frac{\sqrt{1}}{1} \cdot \frac{\sqrt{1}}{1} = \frac{2\sqrt{1}}{2}$$

$$\log(-\cos \alpha) \rightarrow -\cos \alpha > 0 \rightarrow \cos \alpha < 0$$

$$(1 - \cos^2 \alpha) + \cos^2 \alpha = \frac{1}{8} \Rightarrow \cos^2 \alpha - \underbrace{\cos^2 \alpha}_{\sin^2 \alpha} + 1 = \frac{1}{8} \Rightarrow \cos^2 \alpha + \sin^2 \alpha = \frac{1}{8}$$

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

$$\sin \alpha (3 + \cos \alpha) < 0 \Rightarrow \sin \alpha < 0$$

$$\left. \begin{array}{l} \cos \alpha < 0 \\ \sin \alpha < 0 \end{array} \right\} \rightarrow \text{ناچهارم}$$

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

$$\frac{-\frac{r}{4}}{-\frac{r}{4}} = \frac{-\frac{r}{4}}{-\frac{r}{4}} = \frac{-13}{4} \quad \checkmark$$

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$$\frac{\sin 2\theta + \cos 2\theta}{\sin(\theta + \pi) + \sin(\theta - \pi)} = \frac{\sqrt{2} \sin(\theta + \pi/4)}{\frac{\sqrt{2}}{2} \sin \theta + \frac{1}{2} \cos \theta + \frac{1}{2} \cos \theta - \frac{\sqrt{2}}{2} \sin \theta} = \frac{\sqrt{2} \sin \theta}{\cos \theta} = \sqrt{2} \tan \theta$$

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$$(G \sin \theta) (G \cos \theta) (G \sin \theta) \xrightarrow{\text{تقسیم می کنیم}} \frac{\frac{1}{4} \sin^2 \theta \cdot G \cos \theta \cdot G \cos \theta}{\sin \theta} = \frac{\frac{1}{4} \sin \theta \cos \theta}{\sin \theta}$$

$$\frac{\frac{1}{4} \sin \theta}{\sin \theta} = \frac{1}{4} \cos \theta$$

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$$\sin \alpha = 2 - 3 \cos \alpha \xrightarrow{\text{مربع}} \sin^2 \alpha = 9 \cos^2 \alpha - 12 \cos \alpha + 4$$

$$\sin^2 \alpha + \cos^2 \alpha = 1 = 9 \cos^2 \alpha - 12 \cos \alpha + 4$$

$$8 \cos^2 \alpha - 12 \cos \alpha = 0 \Rightarrow 4 \cos \alpha (2 \cos \alpha - 3) = 0 \Rightarrow \cos \alpha = \frac{3}{2} \text{ (مردود)} \text{ یا } \cos \alpha = 0 \Rightarrow \alpha = \frac{\pi}{2}$$

بهترین راه حل برای این سوال چیست؟
راه حل شما بهترین راه حل است که می توان برای این سوال نوشت

$$c \cdot \frac{A}{p} = 1 + \frac{c \cdot A}{p} \rightarrow 2 \sin B \sin C = 1 + c \cdot \frac{A}{p} \xrightarrow{A+B+C=\pi} A = \pi - (B+C)$$

$$1 + c \cdot \frac{\pi - (B+C)}{p} = 1 - c \cdot \frac{(B+C)}{p} = 2 \sin B \sin C$$

$$1 - c \cdot \frac{B+C}{p} + \sin B \sin C = 2 \sin B \sin C \rightarrow \sin B \sin C + c \cdot \frac{B+C}{p} = 1$$

$$c \cdot \frac{(B+C)}{p} = 1 \rightarrow B+C = \frac{p}{c}$$

$$B+C = \frac{p}{c} \Rightarrow B=C \rightarrow A = \pi - 144^\circ = 36^\circ$$

$$B+C = 144^\circ \quad (2+2)$$

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