زهرا احمدی

یازدهم دختر c

Subject

Year Month Day page

۱۷,۲۵

$\cot\alpha = \frac{\cos\alpha}{|\sin\alpha|} \rightarrow \sin\alpha > 0$ ①

3 $\frac{1}{|\cos\alpha|} - \tan\alpha = \frac{1-\sin\alpha}{|\cos\alpha|} \rightarrow \cos\alpha > 0$ ⑤ α در ربع اول قرار دارد.

6 $-\frac{1}{2} < \frac{m-1}{4} \leq 1 \rightarrow \boxed{-1 < m \leq 7}$ ② ⑤

$\frac{\sin^2 x + \cos^2 x}{\sin x \cos x} = -3 \rightarrow \sin x \cos x = -\frac{1}{3}$ ④

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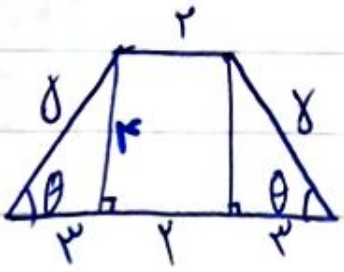
$$\frac{1}{(\sin x + \cos x)(\sin^2 x + \cos^2 x - \sin x \cos x)} =$$ ⑤

12 $(\sin x + \cos x)^2 = 1 + \underbrace{2\sin x \cos x}_{-\frac{2}{3}} \rightarrow \underbrace{\sin x + \cos x}_{\frac{3\pi}{4} < x < \pi} = -\sqrt{\frac{1}{3}}$

$$\frac{1}{-\sqrt{\frac{1}{3}} \times \left(\frac{4}{3}\right)} = \boxed{\frac{-3\sqrt{3}}{40}}$$ ↵

15

18



$\boxed{\frac{(2+8)\times 4}{2} = 20}$ ④ ⑤

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$\alpha = 17^\circ \rightarrow (-\cot\alpha \times \tan\alpha) - (\sin\alpha \times -\sin\alpha)$ ⑤

$-1 + \sin^2\alpha = -\cos^2\alpha \rightarrow \boxed{K = -1}$ ⑤

$+\cos\alpha$

$$A=\sqrt{2}\times-\frac{\sqrt{3}}{2}\times-\cos\alpha\sqrt{-\sqrt{2}\times\frac{\sqrt{2}}{2}\times-\cos\alpha}$$

$$+\frac{3}{2}\cos\alpha+\cos\alpha=\frac{5}{2}\cos\alpha\rightarrow\frac{\frac{5}{2}\cos\alpha}{\cos\alpha}=\frac{5}{2}$$

$$\cos\frac{4}{12}\left(\frac{\pi}{12}\right)=\frac{1+\cos\frac{\pi}{6}}{2}=\frac{2+\sqrt{3}}{4}$$

$$\frac{14}{}\times\frac{2+\sqrt{3}}{4}\times\frac{3}{}\times\frac{1}{4}\times\frac{1}{4}=\frac{3(2+\sqrt{3})}{14}$$

$$\tan\frac{x}{2}=\frac{1-\cos x}{1+\cos x}\rightarrow 1-\sin x=4+4\sin x\rightarrow\sin x=-\frac{3}{5}$$

$$\cos x=\frac{-4}{5}\rightarrow\tan\frac{x}{2}=\frac{\frac{9}{5}}{\frac{1}{5}}=9$$

$$\frac{\sin^2\theta+1-\cos^2\theta}{\sin\theta(1-\cos\theta)}=\frac{2\sin^2\theta}{\sin\theta(1-\cos\theta)}=\frac{2\sin\theta}{1-\cos\theta}$$

$$\frac{2\sin\theta}{1-\cos\theta}=K\times\frac{1+\cos\theta}{1-\cos\theta}\rightarrow K=\frac{2\sin\theta}{1+\cos\theta}$$

$$\cos\left(\frac{3\pi}{4}+\alpha\right)=\left(\cos\frac{3\pi}{4}\times\cos\alpha\right)-\left(\sin\frac{3\pi}{4}\times\sin\alpha\right)=$$

$$\left(-\frac{\sqrt{2}}{2}\times-\frac{\sqrt{98}}{10}\right)-\left(\frac{\sqrt{2}}{2}\times\frac{\sqrt{2}}{10}\right)=\frac{\sqrt{2}}{20}\left(\frac{\sqrt{98}}{\sqrt{2}}-\sqrt{2}\right)$$

$$4\sqrt{2}$$

$$\frac{12}{20}=0/6$$

۸) $1-\sin\alpha = 4+4\sin\alpha \rightarrow \sin\alpha = -\frac{3}{5}$, $\cos\alpha = -\frac{4}{5}$ $\quad \cos^2\frac{\alpha}{2} = \frac{1+\cos\alpha}{2} = \frac{1}{10}$

$1+\tan^2\frac{\alpha}{2} = \frac{1}{\cos^2\frac{\alpha}{2}} \rightarrow \tan\frac{\alpha}{2} = \pm 3$ $\xrightarrow[\text{ناحیه}]{\text{با توجه به}}$ $\tan\frac{\alpha}{2} = -3$

۹) $\frac{\sin^2\theta + (1-\cos^2\theta)}{(1-\cos\theta)\sin\theta} = \frac{2\sin^2\theta}{\sin\theta(1-\cos\theta)} = \frac{2\times 2\sin\frac{\theta}{2}\cos\frac{\theta}{2}}{2\sin^2\frac{\theta}{2}} = 2\cot\frac{\theta}{2}$

$\rightarrow k = 2$