نام و نام خانوادگی ..... پاسخنامه تشریحی تکلیف شماره ۲۸ کلاس .....

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$$\frac{1}{|\cos a|} - \tan a = \frac{1}{|\cos a|} - \frac{\sin a}{|\cos a|} \Rightarrow \frac{\sin a}{\cos a} = \frac{\sin a}{|\cos a|}$$

$\cos a > 0$ ① $\quad \frac{\sin a}{\cos a} = \frac{\cos a}{|\cos a|} \Rightarrow \sin a > 0$ ②

①, ② $\Rightarrow$ a ناحیه اول یا دوم

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$$-\frac{\pi}{6} < 2m < \frac{3\pi}{4} \qquad -\frac{1}{2} < \sin 2m < 1 \qquad -\frac{1}{2} < \frac{m-1}{2} < 1 \qquad -2 < m-1 < 4$$

$$-1 < m < 3$$

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$$\frac{1+\sin 2m}{\sin 2m} = 3 \qquad \sin m \cos m = \frac{-1}{2} \qquad (\sin^2 m + \cos^2 m) = (\sin m + \cos m)(1 - \sin m \cos m)$$

$\frac{\pi}{2} < m < \frac{3\pi}{4}$ $\quad \sin m + \cos m < 0$ $\quad m^2 = 1 + 2\sin m \cos m = 1 - \frac{2}{3} = \frac{1}{3} \Rightarrow \sin m + \cos m = \frac{-\sqrt{3}}{3}$

$$(\sin m + \cos m)\left(1 + \frac{1}{2}\right) = \frac{-2\sqrt{3}}{3} = \sin^3 m + \cos^3 m \qquad \frac{1}{\sin^2 m + \cos^2 m} = -\frac{\sqrt{3}}{4}$$

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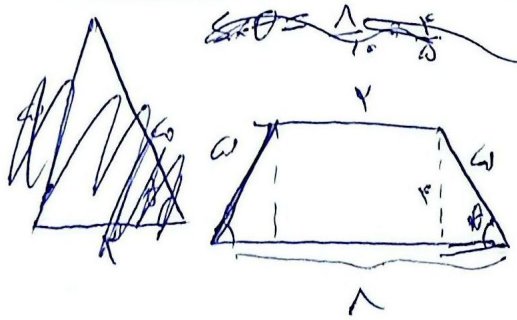

$$\frac{1}{2} \times \frac{4}{5} \times \frac{5}{2} \times 2 = 4 \qquad 2 \times 5 \cos\theta + 2 = \text{محیط} = 4 + 2 = 8$$

$$h = 4 \qquad \frac{(2+8)}{2} \times 4 = 20$$

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$$-\cot 15 \times \tan 15 + \sin 15 \times \sin 15 = \sin^2 15 - 1 = -\cos^2 15 \Rightarrow k = -1$$

$+\sqrt{2}\times\frac{\sqrt{3}}{2}\cos 45 + \sqrt{2}\times\frac{\sqrt{2}}{2}\times\cos 45 = \left(\frac{\sqrt{3}}{2}+1\right)\cos 45$

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$14\ \cos\frac{2\pi}{11}\times\cos^2\frac{\pi}{7}\times\cos^2\frac{\pi}{7}+\cos^2\frac{\pi}{7}$

$\cos\frac{2\pi}{11}=\frac{1+\cos\frac{4\pi}{11}}{2}=\frac{1+\sqrt{2}}{4}$

$14\times\frac{(1+\sqrt{2})}{4}\times\frac{2}{4}\times\frac{1}{4}\times\frac{1}{4}=\frac{7+2\sqrt{2}}{16}$

$2\sin\alpha\cos\alpha=\sin 2\alpha$

$\cos\alpha=\frac{\sin 2\alpha}{2\sin\alpha}$

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$4+4\sin m=1-\sin m \quad \sin m=-\frac{3}{5} \quad \cos m=-\frac{4}{5} \quad \tan m=\frac{3}{4}$

$\sqrt{\frac{1+\frac{3}{5}}{1-\frac{3}{5}}}=\sqrt{\frac{9}{1}}=-3$ ✓

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$\frac{1+\cos\theta}{\sin\theta}=\cot\frac{\theta}{2}$

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

$=\frac{2\sin\theta}{1-\cos\theta}+\frac{1+\cos\theta}{2\sin\theta}=2\cot\frac{\theta}{2}\Rightarrow k=2$

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$\cos\frac{11\pi}{4}=\cos\frac{3\pi}{4}=-\frac{\sqrt{2}}{2},\ \sin\frac{3\pi}{4}=\frac{\sqrt{2}}{2}$

$\cos\left(\frac{11\pi}{4}+a\right)=\cos\left(\frac{3\pi}{4}+a\right)=-\frac{\sqrt{2}}{2}\times-\frac{7\sqrt{2}}{10}-\frac{\sqrt{2}}{2}\times\frac{\sqrt{2}}{10}=\frac{14-2}{20}=\frac{12}{20}$

$=\frac{6}{10}=\frac{3}{5}=\cos\left(\frac{11\pi}{4}+a\right)$

$\sin a=\frac{\sqrt{2}}{10}$

$\cos a=\frac{7\sqrt{2}}{10}$

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موفق و پیروز باشید