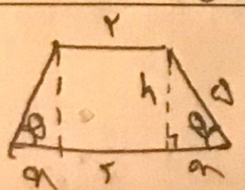
نام و نام خانوادگی ..... نیما کاظمی ..... پاسخنامه تشریحی تکلیف شماره ۲۸ ..... کلاس B .....

$\frac{1}{\cos} - \frac{\sin}{\cos} = \frac{+1-\sin\alpha}{\lvert\cos\alpha\rvert}$ $\quad \cos > 0$ $\frac{\cos\alpha}{\sqrt{\sin^2}} = \frac{\cos}{\sin}$ ناحیه اول $\sin > 0$	1
$-\frac{\pi}{12} < x < \frac{5\pi}{12} \to -\frac{\pi}{6} < 2x < \frac{5\pi}{6}$ $\quad \frac{m-1}{4} \le 1$ $\quad \frac{m-5}{4} \le 0$ $-\frac{1}{2} < \sin 2x \le 1 \to -\frac{1}{2} < \frac{m-1}{4} \le 1$ $\quad m \le 5$ $-\frac{1}{2} < \frac{m-1}{4} \to 0 < \frac{m+1}{4}$ $\quad m > -1$ $\quad m \in (-1, 5]$	2
$\frac{\sin}{\cos} + \frac{\cos}{\sin} = \frac{1}{\sin\cos} = -3$ $\quad \sin\cos = \frac{-1}{3}$ $\quad (\sin+\cos)^2 = \underbrace{\sin^2+\cos^2}_{1} + \underbrace{2\sin\cos}_{\frac{-2}{3}} = \frac{1}{3}$ $\left.\begin{matrix} \sin+\cos = \frac{\pm 1}{\sqrt{3}} \\ \frac{3\pi}{4} < x < \pi \end{matrix}\right\}$ $\sin+\cos = \frac{-1}{\sqrt{3}} \to (\sin+\cos)^3 = \sin^3+\cos^3 + 3\underbrace{\sin\cos}_{\frac{-1}{3}}\underbrace{(\sin+\cos)}_{-\frac{\sqrt{3}}{3}} = \frac{\sqrt{3}}{9}$ $\sin^3+\cos^3 = \frac{\sqrt{3}}{9} - \frac{3\sqrt{3}}{9} = \frac{-2\sqrt{3}}{9}$ $\quad \frac{1}{\sin^3+\cos^3} = \frac{-9}{2\sqrt{3}} = \frac{3\sqrt{3}}{2}$	
$\frac{\sin(\frac{3\pi}{2}+15)}{\cos(\frac{3\pi}{2}+15)} \times \frac{\sin(\pi+15)}{\cos(\pi+15)} - \sin(6\pi+15) \times \cos(\frac{3\pi}{2}-15)$ $\frac{-\cos(15)}{\sin(15)} \times \frac{-\sin(15)}{-\cos(15)} - \sin(15)\times(-\sin(15))$ $-1+\sin^2(15) = -\cos^2(15)$ $\quad k=-1$	سوال ۵
 $5\times\underset{0/6}{\cos\theta} = x$ $\quad \underset{0/36}{\cos^2} + \underset{0/64}{\sin^2} = 1$ $\quad \sin = 0/8$ $2x+2=8$ $\frac{(2+8)\times4}{2} = 20$ $\quad h = 5\times\underset{0/8}{\sin\theta}$	سوال ۴

$\sqrt{۳}\times -\cos(۳۰)\times\sin(\frac{۳\pi}{۲}-۲۷)-\sqrt{۲}\times\sin(۴۵)\times\cos(\pi-۲۷)$

$\sqrt{۳}\times\frac{-\sqrt{۳}}{۲}\times(-\cos(۲۷)) = -\sqrt{۲}\times\frac{\sqrt{۲}}{۲}\times(-)\cos(۲۷)$ ۶

$+\cos(۲۷)+\cos(۲۷)=۲\cos(۲۷)$

آفرین

$۷ \to ۴\sqrt{\cos(۳x)\cos(۶x)\cos(۱۲x)\cos(۲۴x)}\times\sqrt{۴\sin(۳x)}$

$۴\sin(۳x)\times\cos(۳x)=\frac{\sin(۶x)}{۲}\times\cos(۶x)=\frac{\sin(۱۲x)}{۴}\times\cos(۱۲x)=\frac{\sin(۲۴x)}{۸}$ ۷

$\frac{\sin(۲۴x)}{۸}\times\cos(۲۴x)=\frac{\sin(۴۸x)}{۱۶}\Big\}\ \frac{۱۶\times\frac{\sin(۴۸x)}{۱۶}}{\sin(۳x)}=\frac{+\sin(۴۵)}{\sin(۱۵)}$ $\frac{۴}{۳}\frac{1}{\sin(15)}$

$1-\sin x=۴+۴\sin$ $\quad \sin x=\frac{-۳}{۵}$ $\quad \cos=\frac{-۴}{۵}$

$\frac{۲\tan\frac{x}{۲}}{1-\tan^۲\frac{x}{۲}}=\tan x=\frac{۳}{۴}$ $\quad ۸\tan\frac{x}{۲}=۳-۳\tan^۲\frac{x}{۲}$ ۸

$۳\tan^۲\frac{x}{۲}+۸\tan\frac{x}{۲}-۳=۰$ $\quad \frac{-۸\pm\sqrt{۶۴+۳۶}}{۶}=\frac{1}{۳}$ $\quad \tan>۰$

$\frac{\sin^۲x+1-\cos^۲x}{(1-\cos x)\sin x}$ ($1-\cos^۲x=\sin^۲$) $=\frac{۲\sin x}{1-\cos x}=\frac{۴\sin\frac{x}{۲}\cos\frac{x}{۲}}{\underbrace{1-\cos^۲\frac{x}{۲}+\sin^۲\frac{x}{۲}}_{۲\sin^۲\frac{x}{۲}}}=\frac{۴\cos\frac{x}{۲}}{۲\sin\frac{x}{۲}}$ ۹

$k=۲$ $\quad ۲\cot\frac{x}{۲}$

$\sin\alpha=\frac{\sqrt{۲}}{۱۰}$ $\quad \cos(\frac{۳\pi}{۴}+\alpha)=\cos\frac{۳\pi}{۴}\times\cos\alpha-\sin\frac{۳\pi}{۴}\times\sin\alpha$

$\cos\alpha=\frac{-۷\sqrt{۲}}{۱۰}$ $\quad -\frac{\sqrt{۲}}{۲}$

جایگذاری $\to \frac{-\sqrt{۲}}{۲}\times\cos\alpha-\frac{\sqrt{۲}}{۲}\sin\alpha$ $\quad -\frac{\sqrt{۲}}{۲}\left(\frac{\sqrt{۲}}{۱۰}-\frac{۷\sqrt{۲}}{۱۰}\right)$ ۱۰

$\frac{۱۲}{۲۰}=۰/۶$

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