نام و نام خانوادگی ...امیرعلی... پاسخنامه تشریحی تکلیف شماره ۱۸... کلاس ...دهم ریاضی...

الف) $\tan\frac{11\pi}{4} + \sin\frac{15\pi}{4}\cos\frac{13\pi}{4} = \tan\left(\frac{8\pi}{4}+\frac{3\pi}{4}\right) + \sin\left(\frac{12}{4}\pi + \frac{3\pi}{4}\right)\cos\left(\frac{8\pi}{4}+\frac{5\pi}{4}\right) \Rightarrow -1 + \left(-\frac{\sqrt{2}}{2} \times -\frac{\sqrt{2}}{2}\right) = -1 + \frac{1}{2} = -\frac{1}{2}$ ب) $\tan\frac{17\pi}{6}\sin\frac{11\pi}{3} + \cos\frac{10\pi}{3} = \tan\left(\frac{12}{6}\pi + \frac{5}{6}\pi\right)\sin\left(\frac{9}{3}\pi + \frac{2\pi}{3}\right) + \cos\left(\frac{9}{3}\pi + \frac{\pi}{3}\right)$ $-\frac{1}{\sqrt{3}} \times -\frac{\sqrt{3}}{2}$ ... $-\frac{1}{2}$ $= 0$	۱
$\cot = 4 \Rightarrow \frac{\cos}{\sin} = \frac{4}{1} \Rightarrow \cos = 4\sin$ $\frac{3\cos x - \sin x}{\cos x + \sin x} = \frac{3(4\sin) - \sin}{4\sin + \sin} = \frac{12\sin - \sin}{5\sin} = \frac{11\sin}{5\sin} = \frac{11}{5}$	۲
$\sin^2 + \cos^2 = 1 \quad (2\cos)^2 + \cos^2 = 1 = 4\cos^2 + \cos^2 = 1 = 5\cos^2 = 1$ $\cos^2 = \frac{1}{5} \Rightarrow \cos = -\frac{1}{\sqrt{5}}$ به دلیل اینکه در ناحیه سوم است منفی است	۳
$\cos\frac{11\pi}{4}\cos\alpha + \sin\frac{11\pi}{4}\sin\alpha$ $\cos\alpha = \frac{7\sqrt{2}}{10}$ الف) $\sin\alpha = \frac{\sqrt{2}}{10} \Rightarrow \frac{\sqrt{294}}{20} + \frac{\sqrt{2}}{20}$ $2\left(\frac{1}{2}\right)$ ب) $-\frac{7\sqrt{2}}{9\sqrt{50}} - \frac{\sqrt{2}}{9\sqrt{5}} = -\frac{8\sqrt{2}}{2\sqrt{50}}$	۴
$\sin^2 + \cos^2 = 1 \rightarrow \sin^2 + \sin^2 + \cos^2 = \frac{4}{3}$ $\sin^2 = \frac{1}{3}$ $\cos^2 = \frac{4}{3} - \frac{2}{3} = \frac{2}{3}$ $\sin^2 = \frac{4}{3} - \frac{3}{3} = \frac{1}{3}$ $\tan^2 = \frac{\sin^2}{\cos^2} = \frac{\frac{1}{3}}{\frac{2}{3}} = \frac{3}{6}$	۵

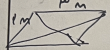
$= \frac{1}{2}$

$m = \frac{1}{2} + 9\alpha\sqrt{2}$ $\sin\alpha = \frac{\sqrt{2}}{2}$ $\frac{12}{6} = 2$

$\max = 12$ $\min = 2$

$9\sqrt{2}\sin\alpha = 9$

$\sin\alpha = \frac{9}{9\sqrt{2}}$ $\sin\alpha = \frac{\sqrt{2}}{2}$



$2S_\Delta = 2 \times \frac{1}{2}$ $\sqrt{10} = 3\sqrt{10}$

$\frac{1}{2} \times 2 \times 3 \times \sin\alpha$ $\frac{1}{2} \times 3 \times 2 \times \sin\alpha$

$\sin\alpha = \frac{1}{2}$ $\cos\alpha = \frac{\sqrt{3}}{2}$ $\tan\alpha = \frac{\sqrt{3}}{3}$

$\frac{1}{2} AB \times BC \times \sin\alpha = 2$

$\frac{1}{2} \times BM \times BN \times \sin\alpha$

$2BM + 2BN = AB \times AC$

$4 + 12 = 16$

$2BM = AM$ $\frac{BM}{AM} = \frac{1}{2}$

$\frac{|\sin\alpha|}{\cos\alpha} = -\frac{1}{\cos\alpha}$ $\frac{1}{\sqrt{\cos^2\alpha}} - \tan\alpha = \frac{1+\sin\alpha}{|\cos\alpha|}$

$\cos\alpha < 0$

$-\frac{\sin\alpha}{\cos\alpha} + \frac{1}{|\cos\alpha|} = \frac{1+\sin\alpha}{|\cos\alpha|}$ $\frac{|\sin\alpha|}{\cos\alpha} = -\frac{\sin\alpha}{\cos\alpha}$