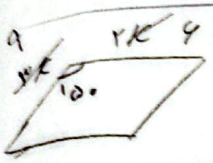
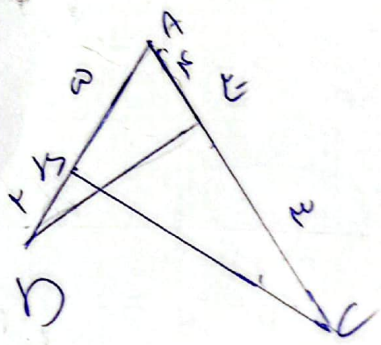


$S = ab = (4\sqrt{2} \times \frac{1}{2}) \times 2 \rightarrow \underline{k=4}$

محیط $= 2(4+9) = 26$ ①



$7 \times 8 \times \sin A - 7 \times 4 \times \sin A = \frac{7}{2}$

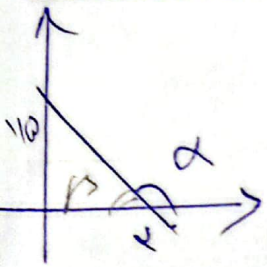
$7 \sin A = \frac{7}{2}$ → $\sin A = \frac{1}{2}$ $\cos = \frac{\sqrt{3}}{2}$ → $\tan = 1$ ②

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

$\frac{|\sin\alpha|}{\cos\alpha} = -\frac{\sin\alpha}{\cos\alpha}$ → $\sin < 0$

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

$\cos\alpha < 0$ ③



$\tan(\frac{\pi}{2} - \alpha) = \cot\alpha$

$\cot\alpha = -\cot\beta \Rightarrow \frac{x}{\frac{1}{4}} = -3$ ④

$\frac{3\cos(\frac{5\pi}{2}N) - 2\sin(10\pi)}{\sin(20\pi) - \cos(19\pi)} = \frac{3\cos(\frac{3\pi}{2} - 22\pi) - 2\sin(\pi - 22\pi)}{\sin(\pi + 22\pi) - \cos(\frac{3\pi}{2} + 22\pi)} =$

$\frac{-3\sin 22\pi - 2\sin 22\pi}{-\sin 22\pi - \sin 22\pi} = 2.5$

(۶)

$$\frac{\sin\left(\frac{\pi}{2}+\alpha\right)-\sin(\alpha-\pi)}{|\tan 2\alpha-1|}$$

$\cos\alpha=\frac{2}{3}$ $\quad \sin\alpha=-\frac{\sqrt{5}}{3}$

$\tan 2\alpha=\frac{5}{2}$

$$=\frac{\cos\alpha+\sin\alpha}{0/25}\rightarrow\frac{4(2-\sqrt{5})}{3}$$

(۷)

$\sin\alpha=2\cos\alpha$ نمیشه

$\sin^2\alpha+\cos^2\alpha=1\rightarrow 5\cos^2\alpha=1\rightarrow\cos\alpha=\frac{-1}{\sqrt{5}}$ $\quad \sin\alpha=\frac{2}{\sqrt{5}}$

(۱)

$2mx+(m^2-1)y-2=0$

$m_d=\tan 45=\sqrt{3}=\frac{-2m}{m^2-1}\rightarrow\sqrt{3}m^2-\sqrt{3}=-2m\rightarrow\sqrt{3}m^2+2m-\sqrt{3}=0$

فاصله: $\frac{\sqrt{\Delta}}{|a|}=\frac{4+12}{2\sqrt{3}}\rightarrow\frac{16}{2\sqrt{3}}$

α

(۹)

$-\frac{\pi}{4}<x<\frac{\pi}{4}$ $\quad \tan\left(\frac{\pi}{4}-x\right)=\frac{1-m}{2+m}$

$\frac{\pi}{4}>-x>-\frac{\pi}{4}\xrightarrow{+\frac{\pi}{4}}\frac{\pi}{2}>\frac{\pi}{4}-x>0$ $\quad (-2,1)$

$\frac{1-m}{2+m}>0\Leftarrow\tan\left(\frac{\pi}{4}-x\right)>0$

(۱۰)

$\tan(300)\cos(210)+\tan(450)\sin(840)=$

$-\sqrt{3}\times-\frac{\sqrt{3}}{2}+-\sqrt{3}\times\frac{\sqrt{3}}{2}=0$