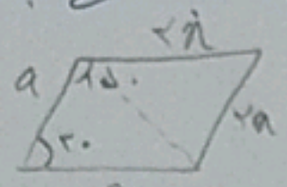
نمودار اصلی ۱۸,۷۵

$S_{\square}$. ۵۴ — بیشترین زاویه بین ۲ ضلع ۱۵۰° — محیط متوازی الاضلاع $ab = 10$

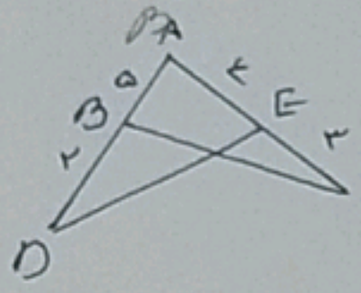
$\frac{۲}{۳}$ ست ۲ ضلع مجاور



$\frac{ab \sin 30 \times 2}{2} = \frac{ab}{2} = 54$

$4\pi \times 2a = 8\pi^2 = 18 \Rightarrow \sqrt{\pi} = \pi$

$\Rightarrow 2(10\pi^2 + a) = 10\sqrt{18}$

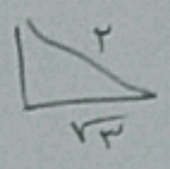


$S|ADE - ABC| \Rightarrow 1,75$

tan A

$\frac{7 \times 5}{2} \sin A - \frac{7 \times 4}{2} \sin B = \frac{7}{4}$

$17,5 - 14 = 3,5 \sin A = \frac{7}{4} \Rightarrow \sin A = \frac{1}{2}$



$\tan A = \frac{1}{\sqrt{3}} = \frac{\sqrt{3}}{3} \quad 30°$

$\frac{1}{\sqrt{\cos^2 a}} - \tan a = \frac{1 + \sin \alpha}{|\cos \alpha|} \geq 0$ (مثبت)

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

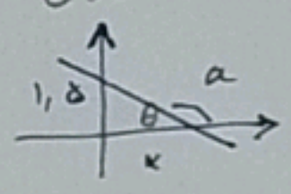
α ناحیه ؟ سوم

$\frac{1}{|\cos \alpha|} - \frac{\sin \alpha}{\cos \alpha} = \frac{1 + \sin \alpha}{|\cos \alpha|} \Rightarrow \frac{-\sin \alpha}{\cos \alpha} = \frac{\sin \alpha}{|\cos \alpha|} \quad \cos \alpha < 0$

$\Rightarrow$ ناحیه ۳

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

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



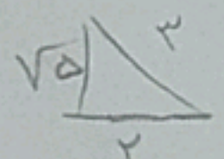
$\frac{2}{1,5} = \frac{4}{3} = \cot(\pi - a) \Rightarrow -\cot(\alpha) \Rightarrow -\frac{4}{3}$

$\frac{2\cos(240) - 2\sin(180)}{\sin(210) - \cos(270)} \Rightarrow \frac{2\cos(\frac{3\pi}{2} - 30) - 2\sin(\pi - 30)}{\sin(\pi + 30) - \cos(\frac{3\pi}{2} - 30)} \Rightarrow \frac{-2\sin(30) - 2\sin(30)}{-\sin(30) - \sin(30)}$

$\frac{-2}{-2} = \frac{2}{2}$

α = ۴ ناحیه $\cos \alpha = \frac{2}{3}$

$\frac{\sin(\frac{\pi}{2} - \alpha) - \sin(\alpha - \pi)}{|\tan^2 \alpha - 1|} \Rightarrow \frac{+\cos(\alpha) + \sin(\alpha)}{|\tan^2 \alpha - 1|}$



$\Rightarrow \frac{\frac{2}{3} - \frac{\sqrt{5}}{3}}{|(\frac{\sqrt{5}}{2})^2 - 1|} = \frac{\frac{2 - \sqrt{5}}{3}}{\frac{5}{4} - 1 \quad \frac{1}{4}} = \frac{4(2 - \sqrt{5})}{3}$

$\sin \alpha = 2 \cos \alpha$ α ناحیه ۳ $\cos \alpha$ ۰/۷۵ $1 + \tan^2 \alpha = \frac{1}{\cos^2 \alpha} \rightarrow \cos^2 \alpha = \frac{1}{5}$

$\tan \alpha \cdot \frac{\sin \alpha}{\cos \alpha} = 2 \cos^2 \alpha \quad 2 \times -\frac{2}{\sqrt{5}} = -\frac{4\sqrt{5}}{5}$ $\cos \alpha = \frac{-\sqrt{5}}{5}$

$2m\pi + (m^2 - 1)\theta = 3$

$(m^2 - 1)\theta = 3 - 2m\pi$

$\theta = \frac{3}{(m^2 - 1)}(-\frac{2m}{m^2 - 1})\pi$

$\frac{\sqrt{3}}{2} - (-\sqrt{3}) = \left| \frac{6\sqrt{3}}{3} \right|$

اختلاف به ازای چند مقدار m با خط‌های محور a زاویه ۶۰° می‌سازد؟

$\Rightarrow \tan 60 = \sqrt{3}$

$-\frac{2m}{m^2 - 1} = \sqrt{3} \Rightarrow \sqrt{3} m^2 + 2m - \sqrt{3} = 0$

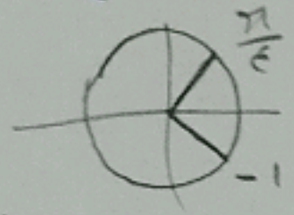
$\Delta = 4 - 4(\sqrt{3} \times -\sqrt{3}) = 16$

$\frac{-2 \pm \sqrt{16}}{2\sqrt{3}} \Rightarrow \frac{-2 - 4}{2\sqrt{3}} = \frac{-3}{\sqrt{3}} \Rightarrow \frac{-3\sqrt{3}}{3}$ $-\sqrt{3}$

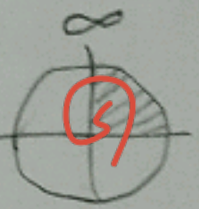
$\frac{-2 + 4}{2\sqrt{3}} = \frac{2}{2\sqrt{3}} = \frac{\sqrt{3}}{3}$

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

$\frac{\pi}{4}-\frac{\pi}{4}=0$



$\frac{\pi}{4}-\left(-\frac{\pi}{4}\right)=\frac{\pi}{2} \Rightarrow \tan(\alpha)=\frac{1-m}{2+m}$ ، $0<\alpha<\frac{\pi}{2}$



، $0<\frac{1-m}{2+m}<\infty \Rightarrow 0<\frac{1-m}{2+m} \Rightarrow$

	-2	1	
−	2	−	

$\Rightarrow (-2\ 1)$

$\tan(200^\circ)\cos(210^\circ)+\tan(\cancel{240^\circ})\sin(\cancel{210^\circ}) \Rightarrow$ ③

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