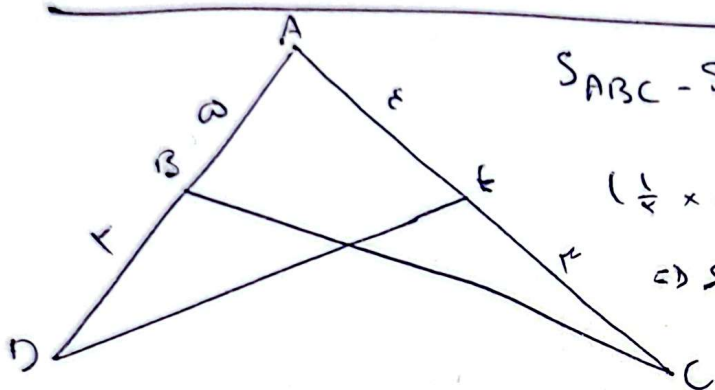


$\rightarrow S = r_m \times r_m \rightarrow \text{في } \Delta O = r_m \times r_m \times \frac{1}{2} = r_m^2 = \alpha x$

$\rightarrow K = x^2 \rightarrow x = \sqrt{2}r \rightarrow \text{في } \Delta = 2(r_m + r_m) = 10r = 10\sqrt{2}r$



$S_{ABC} - S_{ADE} =$

$(\frac{1}{2} \times a \times u \times \sin A) - (\frac{1}{2} \times x \times y \times \sin A)$

$\Rightarrow \sin A (\frac{a \times u}{2} - \frac{x \times y}{2}) = \sin A (\frac{u}{2}) = \frac{u}{2} = 1, u = 2$

$\sin A = \frac{u}{2} = \frac{1}{2} \rightarrow A = 30^\circ$

$\tan A = \tan 30^\circ = \frac{\sqrt{3}}{3}$

(2)



$\frac{|\sin \alpha|}{\cos \alpha} = \frac{-\sin \alpha}{\cos \alpha} \rightarrow |\sin \alpha| = -\sin \alpha$

$\Rightarrow \sin \alpha < 0$

(3)

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

فقط  $\cos \alpha$  يكون

اذا تمام الجيب هو اعداد موجبة

$\cos \alpha < 0$

$\Rightarrow \alpha \begin{cases} \sin \alpha < 0 \\ \cos \alpha < 0 \end{cases} \Rightarrow \text{ثالث}$

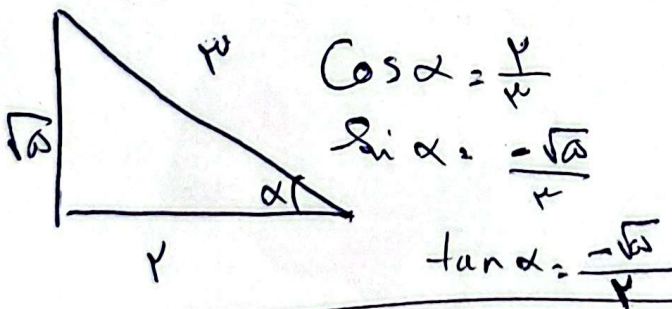
حاصل ضرب

$$\tan\left(\frac{\pi}{2} - \alpha\right) = \tan(90^\circ - \alpha) = \cot \alpha = -\cot(180^\circ - \alpha) = \frac{-\frac{4}{3}}{1} \leftarrow \frac{4}{3}$$

$$\frac{1}{\sqrt{3}} = \frac{\frac{1}{\sqrt{3}}}{\frac{1}{\sqrt{3}}} \cdot \frac{4}{3} \rightarrow$$

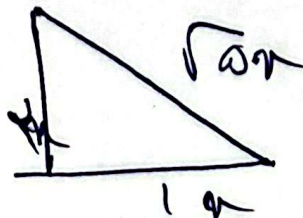
$$\frac{\cos(\pi + \alpha) - \sin(180^\circ - \alpha)}{\sin(180^\circ + \alpha) - \cos(\pi + \alpha)} = \frac{-\cos \alpha - \sin \alpha}{-\sin \alpha - (-\cos \alpha)} = \frac{-\cos \alpha - \sin \alpha}{-\sin \alpha + \cos \alpha} \rightarrow \frac{1}{2} = \frac{1 + \sqrt{3}}{2}$$

$$\frac{\cos \alpha - \sin \alpha}{|\tan \alpha - 1|} = \frac{\frac{1}{2} + \frac{\sqrt{3}}{2}}{\left|\frac{1}{2} - 1\right|} = \frac{\frac{1 + \sqrt{3}}{2}}{\frac{1}{2}} = \frac{1 + \sqrt{3}}{1}$$



مخبر

$$\frac{\sin \alpha}{\cos \alpha} = r \rightarrow \sin \alpha = r \cos \alpha \rightarrow \tan \alpha = \frac{\sin \alpha}{\cos \alpha} = \frac{r \cos \alpha}{\cos \alpha} = r = \tan \alpha$$



$$\cos \alpha = \frac{1}{\sqrt{2}}$$



امیر حسن بیگزاس ماہنامہ لبرائی

$$\left(\frac{-\sqrt{4}}{2}\right) \left(\frac{-\sqrt{4}}{2}\right) + \left(\frac{-\sqrt{4}}{2}\right) \left(\frac{+\sqrt{4}}{2}\right) = 0$$

$\frac{+4}{2}$                        $\frac{-4}{2}$

↓

جواب

(1)