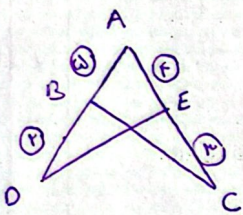


$$S_{\square} = ab \sin a = 4x^2 \sin 45^\circ = 2x^2 \rightarrow x^2 = 11 \rightarrow \underline{x = \sqrt{11}}$$

$$P_{\square} = 1 \cdot x = \underline{1 \cdot \sqrt{11}}$$

1



$$S_{ABC} - S_{ADE} = 1/2 \cdot a \cdot d$$

$$S_{ABC} = \frac{1}{2} \cdot a \cdot d \cdot \sin A = 1/2 \cdot a \cdot d \cdot \sin A$$

$$S_{ADE} = \frac{1}{2} \cdot f \cdot x \cdot \sin A = 1/2 \cdot f \cdot x \cdot \sin A$$

$$\Rightarrow 1/2 \cdot a \cdot d \cdot \sin A - 1/2 \cdot f \cdot x \cdot \sin A = 1/2 \cdot a \cdot d \cdot \sin A \Rightarrow \sin A = \frac{1}{f} \xrightarrow{A=45^\circ} \tan 45^\circ = \frac{1}{\sqrt{11}}$$

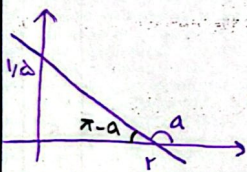
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$$\frac{1}{\sqrt{\cos a}} - \tan a = \frac{1 + \sin a}{|\cos a|} \Rightarrow \frac{1}{|\cos a|} - \tan a = \frac{1 + \sin a}{|\cos a|}$$

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

$$\frac{1}{|\cos a|} - \tan a = \frac{1}{|\cos a|} + \frac{\sin a}{|\cos a|} \Rightarrow -\frac{\sin a}{\cos a} = \frac{\sin a}{|\cos a|} \Rightarrow \frac{\sin a}{\cos a} < 0$$

$$\frac{|\sin a|}{\cos a} = -\frac{\sin a}{\cos a} \Rightarrow |\sin a| = -\sin a \Rightarrow \underline{\sin a < 0} \Rightarrow \underline{\text{منفی}}$$



$$\tan(\pi - a) = \frac{1/d}{r} \Rightarrow \tan a = -\frac{r}{d}$$

$$\tan\left(\frac{\pi}{2} - a\right) = \cot a = \frac{1}{\tan a} = \frac{1}{-\frac{r}{d}} = -\frac{d}{r}$$

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$$\frac{r \cos(170^\circ) - r \sin(10^\circ)}{\sin(10^\circ) - \cos(170^\circ)} = \frac{r \cos(170^\circ - 22^\circ) - r \sin(110^\circ - 22^\circ)}{\sin(110^\circ + 22^\circ) - \cos(170^\circ + 22^\circ)}$$

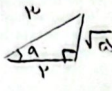
$$\Rightarrow \frac{-r \sin 22^\circ - r \sin 22^\circ}{-\sin 22^\circ - \sin 22^\circ} = \frac{-2r \sin 22^\circ}{-2 \sin 22^\circ} = \underline{\frac{d}{r} = 1/d}$$

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$$\cos a = \frac{r}{\rho}$$

$$\frac{\sin(\frac{\pi}{r} + a) - \sin(a - \pi)}{|\tan^r a - 1|} \xrightarrow{\text{IFD}} \frac{\cos a + \sin(\pi - a)}{|\tan^r a - 1|}$$

IF F u o i a   
  $\cos a = \frac{r}{\rho}$



$$\Rightarrow \sin a = -\frac{\sqrt{a}}{\rho}, \quad \tan a = -\frac{\sqrt{a}}{r} \Rightarrow \frac{\frac{r}{\rho} + (-\frac{\sqrt{a}}{\rho})}{|\frac{a}{r} - 1|} = \frac{r - \sqrt{a}}{r} = \frac{r(r - \sqrt{a})}{r}$$

$$\sin a = r \cos a \xrightarrow{\div \cos a} \tan a = r$$

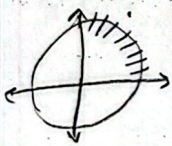
$$\hookrightarrow \frac{1}{\cos^2 a} = 1 + \tan^2 a \Rightarrow \frac{1}{\cos^2 a} = a \Rightarrow \cos a = \pm \frac{\sqrt{a}}{a} \xrightarrow{\text{IFD}} -\frac{\sqrt{a}}{a}$$

$$r m x + (m^r - 1) y = r \Rightarrow \frac{-r m}{m^r - 1} = \sqrt{r} \Rightarrow \sqrt{r^2 m^r + r m^r - \sqrt{r}} = 0$$

$$\rightarrow \tan \alpha = \sqrt{r} \quad |m_1 - m_2| = \frac{\sqrt{\Delta}}{|a|} = \frac{\sqrt{14}}{\sqrt{r}} = \frac{r}{\sqrt{r}}$$

$$-\frac{\pi}{r} < x < \frac{\pi}{r}$$

$$\tan\left(\frac{\pi}{r} - x\right) = \frac{1-m}{r+m} \Rightarrow 0 < \frac{\pi}{r} - x < \frac{\pi}{r} \Rightarrow 0 < \tan\left(\frac{\pi}{r} - x\right) \Rightarrow 0 < \frac{1-m}{r+m}$$



$$\Rightarrow \frac{-r}{-} \frac{+1}{-} \rightarrow \boxed{-r < m < 1}$$

$$\tan(r \cdot 0) \cos(r \cdot 0) + \tan(r \cdot 0) \sin(r \cdot 0) =$$

$$\frac{a \pi}{r} \quad \frac{\sqrt{a}}{r}$$

$$\tan(r \cdot 0) \sin(r \cdot 0)$$

$$\frac{r \pi}{r} \quad \frac{r \pi}{r}$$

$$= x(-\sqrt{r})(-\frac{\sqrt{r}}{r}) + (-\sqrt{r})(\frac{\sqrt{r}}{r})$$

$$\frac{r}{r} - \frac{r}{r} = 0$$