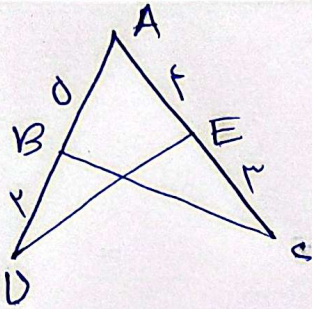


$$\delta f = 3x \times 2x \times x \sin 10^\circ$$

$$3x^2 = \delta f \rightarrow x^2 = 11 \rightarrow x = \sqrt{11}$$

$$\Delta_{\text{حجم}} = 1 \cdot x = 1 \cdot \sqrt{11}$$



$$S_{ABC} - S_{ADE} = \left(\frac{1}{2} \times 8 \times \sqrt{3} \times \sin A\right) - \left(\frac{1}{2} \times 4 \times \sqrt{3} \times \sin A\right)$$

$$= 11\sqrt{3} \sin A - 4\sqrt{3} \sin A = 7\sqrt{3} \sin A = 11\sqrt{3}$$

$$\Rightarrow \sin A = \frac{1}{7} \Rightarrow A = 3^\circ \Rightarrow \tan A = \frac{\sqrt{3}}{7}$$

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

در صورتی با هم برابر هستند که  
cos و sin همی باشد  $\Rightarrow \cos \alpha = -$

$$\frac{|\sin \alpha|}{\cos \alpha} = - \frac{\sin \alpha}{\cos \alpha} \Rightarrow \sin \text{ همی هست} \Rightarrow \sin = -$$

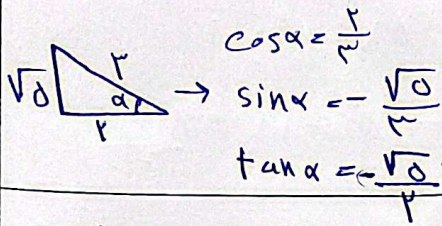
نام سرم

$$\tan\left(\frac{\pi}{4} - \alpha\right) = \cot \alpha = -\cot B = -\frac{4}{3}$$

برای مکمل  $\Rightarrow \cot \alpha = -\cot B$

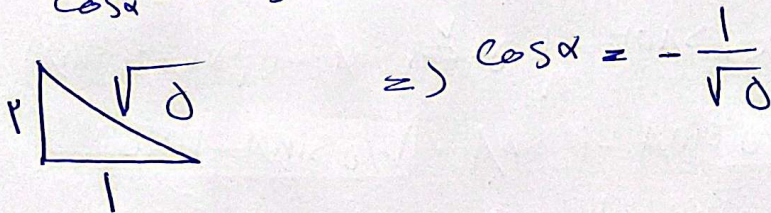
$$\frac{3 \cos(27-22) - 2 \sin(11-22)}{\sin(11+22) - \cos(27+22)} = \frac{-3 \sin 22 - 2 \sin 22}{-\sin 22 - \sin 22} = \frac{-5 \sin 22}{-2 \sin 22} = \frac{5}{2}$$

$$\frac{\cos \alpha - \sin \alpha}{|\tan^2 \alpha - 1|} = \frac{\frac{r}{r} + \frac{\sqrt{0}}{r}}{\left| \frac{0}{r} - 1 \right|} = \frac{\frac{r + \sqrt{0}}{r}}{\frac{1}{r}} = \frac{r + \sqrt{0}}{1r}$$



6

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



7

$$\tan \alpha = \sqrt{r} \Rightarrow \frac{-rM}{M^2 - 1} = \sqrt{r} \Rightarrow \sqrt{r}M^2 + rM - r\sqrt{r} = 0$$

$$\Rightarrow M^2 + rM - r = 0 \Rightarrow (M + r)(M - 1) = 0 \Rightarrow M_1 = \frac{-r}{\sqrt{r}}, M_2 = \frac{1}{\sqrt{r}}$$

$$\Rightarrow |M_1 - M_2| = \frac{1}{\sqrt{r}} - \frac{-r}{\sqrt{r}} = \frac{r}{\sqrt{r}}$$

8

$$\frac{\pi}{2} - \alpha = \alpha \rightarrow -\frac{\pi}{2} < \alpha < \frac{\pi}{2} \rightarrow 0 < \alpha < \frac{\pi}{2} \rightarrow 0 < \tan \alpha < 1$$

$$\Rightarrow 0 < \frac{1-M}{r+M} < 1 \quad \left\{ \begin{array}{l} \frac{1-M}{r+M} > 0 \\ \frac{-1-rM}{r+M} < 0 \end{array} \right. \Rightarrow \left( -\frac{1}{r}, 1 \right)$$

9

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

$$\left( \frac{r}{r} \right) + \left( \frac{-r}{r} \right)$$

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