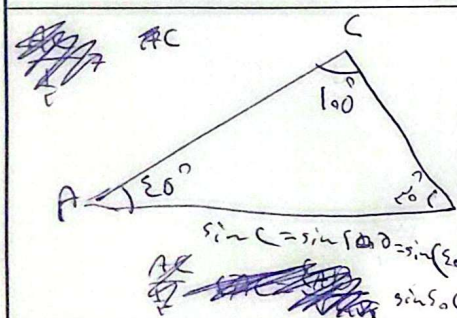
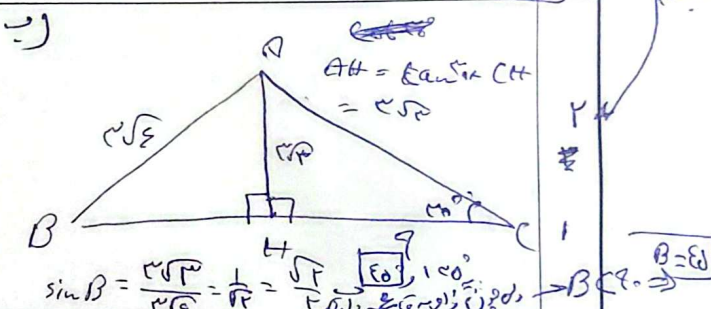
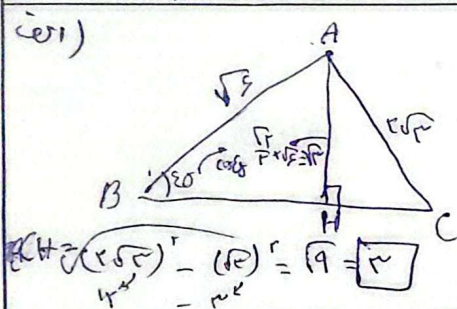
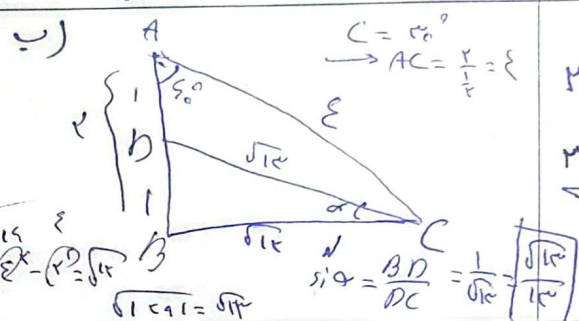
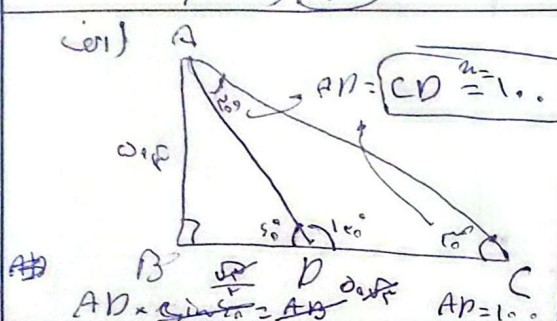


①

$1 + \cancel{r \cos^2 r_0} \rightarrow \left(\frac{\sqrt{r}}{r}\right)^r = \frac{1}{\sqrt{r}}$

$\frac{2 \left(\frac{\sqrt{r}}{r}\right)^r}{\cancel{r \cos^2 r_0} + r \cos^2 r_0} \rightarrow \left(\frac{\sqrt{r}}{r}\right)^r = \frac{1}{\sqrt{r}}$

$\frac{1}{\sqrt{r}}$

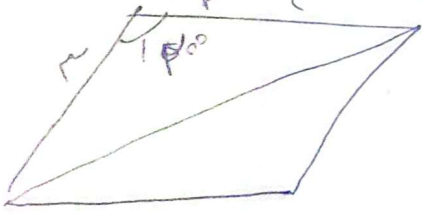
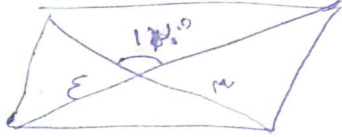
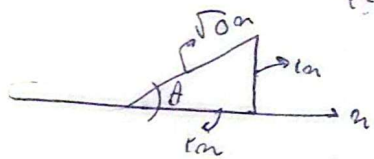
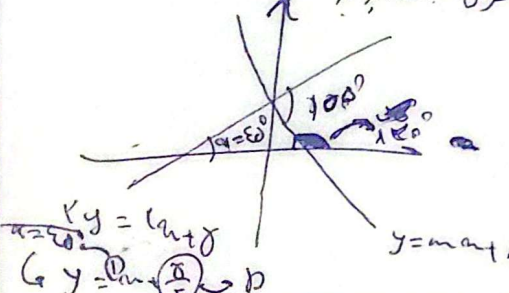


$$\frac{AC}{\sin B} = \frac{BC}{\sin A} = \frac{AB}{\sin C} \rightarrow \frac{AB}{AC} = \frac{\sin C}{\sin B}$$

$$\frac{1}{\frac{1}{r}} \rightarrow \frac{\sqrt{E} + \sqrt{F}}{E}$$

$$\rightarrow \frac{AB}{\frac{AC}{\sqrt{E} + \sqrt{F}}} = \frac{\sin C}{\sin B} = \frac{\sqrt{E} + \sqrt{F}}{r}$$

$\Rightarrow B$: اے صبر $\rightarrow S(A \triangle B) = \frac{1}{2} \times \epsilon \times \sin B = \frac{1}{2} \times \epsilon \times \sin B = \epsilon \sin B$
 $S(C \cap D) = \frac{1}{2} \times \frac{\epsilon}{2} \times \sin B = \frac{\epsilon}{4} \sin B$
 $\frac{A \cap B}{C \cap D} = \frac{\epsilon \sin B}{\frac{\epsilon}{4} \sin B} = 4$

الف) $\frac{1}{\sqrt{2}} \times \frac{1}{\sqrt{2}} \times \sin 135^\circ = \frac{1}{2}$ 	ب) $\frac{1}{\sqrt{2}} \times \frac{1}{\sqrt{2}} \times \sin 135^\circ = \frac{1}{2}$ 
$\tan \theta = \frac{y_2 - y_1}{x_2 - x_1} = \frac{2 - 1}{1 - 1} = \frac{1}{0} = \frac{1}{\infty}$  $\cos(\theta) \Rightarrow \frac{1}{\sqrt{2}} = \frac{1}{\sqrt{2}} = \frac{\sqrt{2}}{2}$	7
چون مقدار تانژانت در کسری y ← عرف مایل برابر  $y = m_1x + b$ $y = m_2x + b$	$m_1 = -\frac{\sqrt{3}}{1} = -\frac{\sqrt{3}}{1}$ $b = \frac{0}{-1}$ $180 - 100 = 80$ زاویه مقابل در کسری 1 $80 + 10 = 90$ $\tan 100^\circ = -\sqrt{3} \rightarrow m$
$\cos(\pi + \alpha) = -\cos \alpha$ $\sin(\frac{\pi}{2} - \alpha) = \cos \alpha$ $\tan(\frac{\pi}{2} + \alpha) = -\cot \alpha$ $f(\alpha) = -\cos \alpha + \cos \alpha + \cot \alpha = \cot(\alpha)$ $f(\frac{5\pi}{9}) = \cot \frac{5\pi}{9} = \cot 100^\circ = -\sqrt{3}$	9
$\sin(\frac{10\pi}{9} + \alpha) + \cos(\frac{10\pi}{9} - \alpha)$ $\cos(\pi + \alpha) = -\cos \alpha$ $\sin(\pi - \alpha) = \sin \alpha$	$\frac{\sin(\frac{10\pi}{9} + \alpha) + \cos(\frac{10\pi}{9} - \alpha)}{\cos(\pi + \alpha) + \sin(\pi - \alpha)} = \frac{-\cos \alpha - \sin \alpha}{-\cos \alpha + \sin \alpha} = -1$