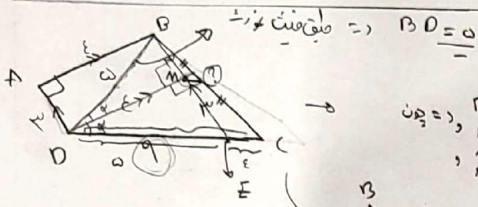


$$\frac{S_{\triangle BCE}}{S_{\triangle CDE}} = ? \xrightarrow{h=h'} \frac{S_{\triangle BCE}}{S_{\triangle CDE}} = \frac{BC}{DE} = \frac{AB}{AD} = \frac{12}{6} = \underline{2}$$

۱

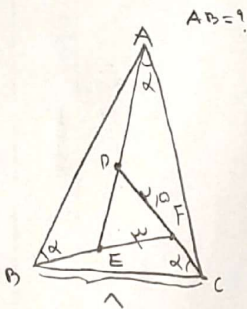


$DM \parallel BA$
 $BM = AD$
 $\hat{A} = 90^\circ$

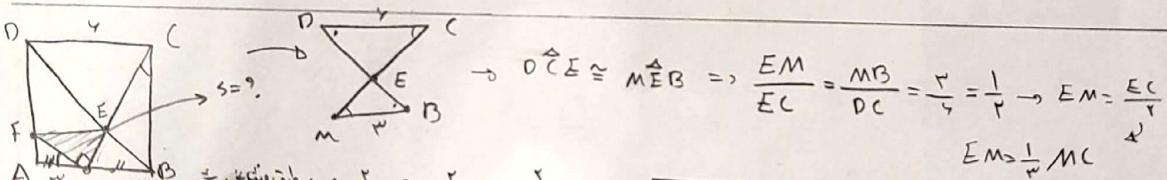
$\Rightarrow ABMD$ مستطیل $\Rightarrow \hat{D} = \hat{D}' \Rightarrow \hat{DMB} \cong \hat{DMF}$
 $\left. \begin{array}{l} BM = r \\ DM = \epsilon \end{array} \right\} \Rightarrow \left. \begin{array}{l} r = ME \\ \epsilon = DE \end{array} \right\}$

طبق سیم: $\frac{MF}{\epsilon} = \frac{BF}{BC} = \frac{1}{2} \Rightarrow MF = \underline{2}$

۲



۳



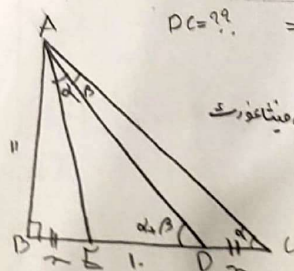
$\hat{DCE} \cong \hat{MEB} \Rightarrow \frac{EM}{EC} = \frac{MB}{DC} = \frac{r}{4} = \frac{1}{4} \Rightarrow EM = \frac{EC}{4}$
 $EM = \frac{1}{4} MC$

$CM^2 = BM^2 + BC^2 \Rightarrow CM = \sqrt{r^2 + 4} = \underline{3\sqrt{5}}$

$\hat{FAM} \cong \hat{CMB} \Rightarrow \frac{AM}{BC} = \frac{MF}{MC} \Rightarrow \frac{r}{4} = \frac{1}{4} = \frac{MF}{3\sqrt{5}} \Rightarrow MF = \underline{\frac{3\sqrt{5}}{4}}$

$S = \frac{1}{2} \times MF \times ME \Rightarrow \frac{1}{2} \times \frac{3\sqrt{5}}{4} \times \frac{3\sqrt{5}}{4} = \underline{\frac{15}{8}}$

۴



$DC = 99 \Rightarrow \hat{ADE} \cong \hat{AEC} \Rightarrow \frac{AE}{EC} = \frac{ED}{AE} \Rightarrow AE^2 = 1 \cdot (1+n)$
 $AE^2 = BE^2 + BA^2 \Rightarrow 1 + 1 \cdot n = n^2 + 1 \Rightarrow n^2 - 1 \cdot n + 1 = 0$
 $(n-1)(n-2) = 0$
 $\Rightarrow n = \underline{2}$
 $n = DC!$

۵

