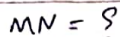




$DE \parallel BC$

$$\frac{AE}{AC} = \frac{DE}{BC} = \frac{d}{H} \rightarrow \frac{AE}{EC} = \frac{d}{V}$$

$$\begin{aligned} & \text{DE} \parallel \text{BC} \\ & \angle \text{BCE} = \angle \text{BDE} \end{aligned} \quad \begin{aligned} & \therefore \frac{K_A \text{BC}}{K_A \text{DE}} = \frac{15}{a} \end{aligned}$$



$$B\hat{D}C = 2B\hat{D}M$$

$$BD_{\text{eff}} = \sqrt{\mu_r \epsilon_r} \approx d$$

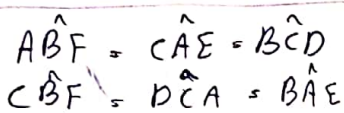
$$\left. \begin{array}{l} AB \parallel DM \\ AD \parallel BM \\ \text{قوس } BD \end{array} \right\} \Rightarrow \left. \begin{array}{l} \hat{M} = \hat{A} = 90^\circ \\ \hat{ABD} = \hat{BDM} \\ \text{قوس } BD \end{array} \right\} \Rightarrow \begin{array}{l} AB = DM = 5 \\ AD = BM = 4 \end{array}$$

$$\begin{aligned} \hat{B} \hat{D} C &= 2 \hat{B} \hat{D} M \\ \hat{B} \hat{D} M + \hat{M} \hat{D} C &= 2 \hat{B} \hat{D} M \end{aligned} \quad \left. \begin{array}{l} \hat{B} \hat{D} M = \hat{M} \hat{D} C \\ \hat{B} \hat{D} C = 2 \hat{B} \hat{D} M \end{array} \right\} \text{نصف } \hat{B} \hat{D} C \text{ و } \hat{M} \hat{D} C$$

$$\left. \begin{array}{l} \hat{BDM} = \hat{MDC} \\ \hat{DM} \\ \hat{M} = 9.0 \end{array} \right\} \Rightarrow \begin{array}{l} \hat{BDM} \leftarrow \hat{DMF} \\ DF = \alpha \quad FM = \beta \\ FC = \epsilon \quad FE = \gamma \end{array}$$

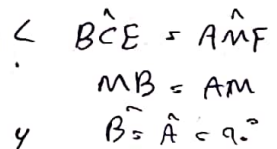
۸۸ اقتصادي

$\Rightarrow EN \parallel BD \Rightarrow \frac{EN}{CB} = \frac{CE}{CD} = \frac{EN}{BD} \Rightarrow CE = 1,0$
 $EM \parallel BD \Rightarrow \frac{EM}{FD} = \frac{EM}{BD} \Rightarrow EM = 0,8$
 $MN = EN - EM = 1,0 - 0,8 = 0,2$



$\hat{CBE} = \hat{DFE}$ } $\Rightarrow \hat{C} = \hat{F}$ $\rightarrow \hat{A} = \hat{D}$
 زاویه قائمه $\hat{B} = \hat{E}$
 زاویه قائمه

$$\triangle DEF \sim \triangle ABC \Rightarrow \frac{DF}{BC} = \frac{EF}{AB} \Rightarrow AB = 9.19$$



$$MBC \sim AFM$$

$$\frac{AF}{MB} = \frac{FM}{MC} = \frac{AM}{BC} \cdot \frac{1}{4} \Rightarrow AF = 1.8 \quad FM = 1.8$$

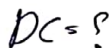
$$MC = \sqrt{4 \frac{r}{\Delta} \mu^2} = 2\sqrt{\frac{r}{\Delta} \mu^2}$$

DC 4 MB
2, 3 MC

$$EC \leq YME \Rightarrow MC = EC + ME \leq YME$$

$$ME = \sqrt{a}$$

$$SFME = \frac{\sqrt{\sigma_A} \cdot \ln \sqrt{N}}{r} = r, v_A$$



$$\left. \begin{array}{l} AE = AE \\ \hat{E} = \hat{E} \end{array} \right\} ACE \sim ADE$$

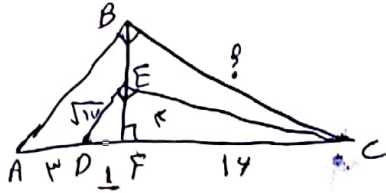
$$\frac{AE}{1.0 + DC} = \frac{AD}{AC} = \frac{1.0}{AE} \Rightarrow AE^2 = 1.0 + 1.0 \cdot DC$$

$AE^P = 1.0 \rightarrow 1.00$

$$AE^r = BE^r + DC^r$$

$$\begin{cases} DC^r + 1 = 1.0 + 1.0 \cdot DC \\ DC^r + 1.0 \cdot DC + 1 \\ (DC - v)(DC - r) = 0 \end{cases}$$

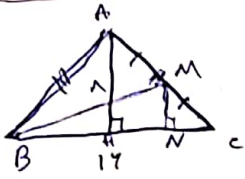
$$DC = 3, V$$



$$ED = \sqrt{14^2 - 4^2} = \sqrt{144}$$

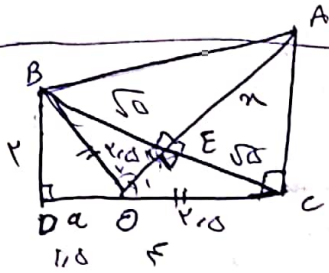
$$ED = DF + DC \Rightarrow DC = 14 \Rightarrow FC = 14$$

$$BC^2 = FC \cdot AC \Rightarrow BC = \sqrt{4 \cdot 42} = 12\sqrt{3}$$



$$AM \parallel MN \Rightarrow \frac{MN}{AM} = \frac{MC}{AC} = \frac{NC}{CA} \Rightarrow MN = 4, NC = 4, BN = 14$$

$$BM = \sqrt{14^2 - 4^2} = \sqrt{144} = 12$$



$$OC = OB$$

$$14^2 + a^2 - 1a = a^2 \Rightarrow 14^2 + a^2 - 1a = a^2$$

$$14 - a = \sqrt{a^2 + 14^2}$$

$$14a = 14^2 \Rightarrow a = 14$$

$$BC = \sqrt{14^2 + 14^2} = 14\sqrt{2}$$

$$OE = \sqrt{14^2 - 14^2} = 0$$

$$\begin{cases} \hat{B}_1 = \hat{C}_1 \\ \hat{E}_1 = \hat{E}_1 \end{cases} \Rightarrow \hat{O}_1 = \hat{O}_1$$

$$BE = CE$$

$$BC = BE + CE = 2BE$$

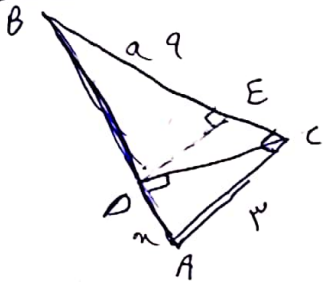
$$BE = EC = 7\sqrt{2}$$

$$BO^2 = OE \cdot OA$$

$$4 \cdot 14 = \sqrt{14^2 + 14^2} \cdot \sqrt{14^2 + 14^2} \Rightarrow \sqrt{14^2 + 14^2} = 14\sqrt{2}$$

$$\sqrt{14^2 + 14^2} = 14\sqrt{2}$$

$$S_{ABE} = \frac{\sqrt{2} \cdot 14 \cdot 7\sqrt{2}}{2} = 49$$



$$AB = \sqrt{14^2 + 14^2} = 14\sqrt{2}$$

$$AC^2 = n \cdot AB$$

$$n = \frac{4}{\sqrt{2}}$$

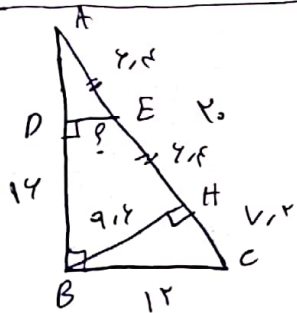
$$BD = \frac{14}{\sqrt{2}}$$

$$14 = n \cdot 14\sqrt{2}$$

$$\frac{BD}{AB} = \frac{BE}{BC}$$

$$\frac{14}{14\sqrt{2}} = \frac{a}{14}$$

$$a = 14$$



$$AH = n$$

$$14^2 = n \cdot 14 \Rightarrow n = 14$$

$$\Rightarrow CH = 14$$

$$n = 14$$

$$AE = HE = 14$$

$$BH = \sqrt{14^2 - 14^2} = 0$$

$$DE \parallel BC \Rightarrow \frac{AD}{AB} = \frac{DE}{BC} = \frac{AE}{AC}$$

$$\Rightarrow DE = 14$$