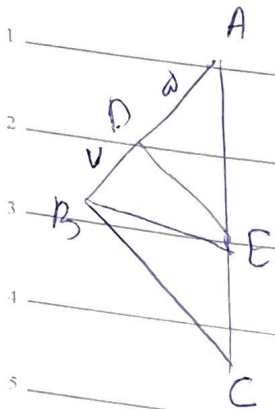


سنا ابراهيم يا دهم رقت C

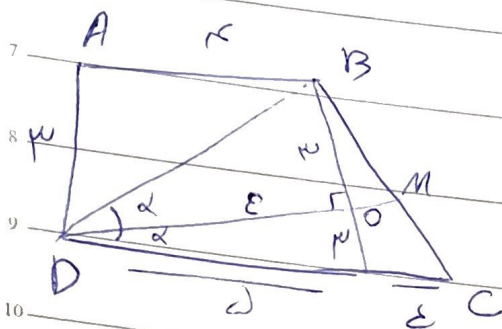
19, 70

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$$DE \parallel BC \rightarrow \frac{AB}{AD} = \frac{AC}{AE} = \frac{BC}{DE} = \frac{12}{10} \quad (1)$$

$$\frac{S_{BCE}}{S_{BDE}} = \frac{\frac{1}{2} \times h \times BC}{\frac{1}{2} \times h \times DE} = \frac{12}{10} = \frac{6}{5} \quad (2)$$

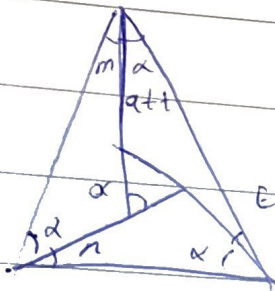


$$A = 90^\circ \Rightarrow ABMD \text{ مستطیل} \quad (3)$$

$$D_1 = D_2 \Rightarrow \angle MDB, \angle MDE \text{ قائم الزاویه} \rightarrow DM = \epsilon$$

$$PF = \delta, FC = \kappa \Rightarrow MF = BM = \mu$$

$$\text{طبقه اول} \rightarrow \frac{BM}{BF} = \frac{MO}{FC} = \frac{\mu}{\kappa} = \frac{1}{4} \Rightarrow MO = \mu$$



$$\text{مستطیل } ADC \text{ و } DEF \text{ در مستطیل } ABC \quad (4)$$

$$F = \alpha + t$$

$$E = \alpha + m$$

$$F = B$$

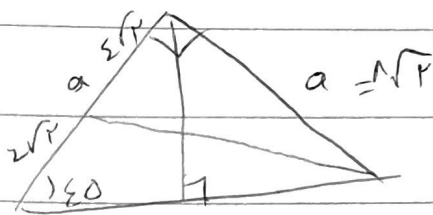
$$D = C$$

$$E = A$$

$$\rightarrow \frac{AB}{\mu} = \frac{A}{\mu} \Rightarrow \frac{12}{10} AB = \mu$$

$$AB = 9.16$$

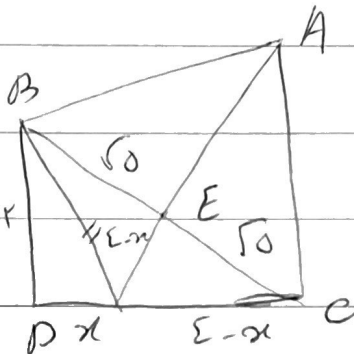




$$\psi a^2 = 14r^2 \rightarrow a^2 = 14 \times 14$$

$$\rightarrow a = \epsilon \times \psi \sqrt{r} = \sqrt{14}r$$

$$x^2 = \sqrt{(\sqrt{14}r)^2 + (\epsilon \sqrt{r})^2} = \sqrt{14r} = \epsilon \sqrt{14}$$



$$BC = \sqrt{r^2 + \epsilon^2} = 2\sqrt{\delta}$$

مساواة المثلثين = معادلة ارتفاع المثلث

$$(\epsilon - x)^2 = \epsilon + x^2 \rightarrow x^2 - 14x + 14 = x^2 + \epsilon$$

$$\Rightarrow x = \frac{r}{4}$$

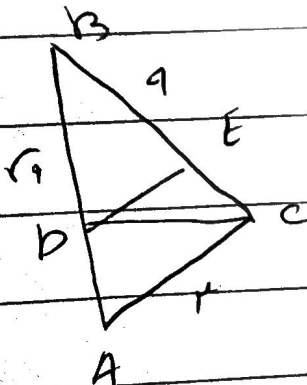
$$BD \rightarrow \epsilon - x = \epsilon - \frac{r}{4} = \frac{\partial}{4}$$

$$OEC \Rightarrow OE^2 = \left(\frac{\partial}{4}\right)^2 - (\sqrt{\delta})^2 = \frac{r^2}{\epsilon} - \delta = \frac{\partial}{\epsilon}$$

$$OE = \frac{\sqrt{\delta}}{r} \Rightarrow AO \times OE = OC^2 \rightarrow AO \times \frac{\sqrt{\delta}}{r} = \left(\frac{\partial}{4}\right)^2$$

$$AO = \frac{r\partial}{2\sqrt{\delta}} \Rightarrow \frac{\partial \sqrt{\delta}}{r} \rightarrow S_{AEB} = \frac{1}{r} \times \sqrt{\delta} \left(\frac{\partial \sqrt{\delta}}{r} - \frac{\sqrt{\delta}}{r} \right)$$

= 0



$$BC^2 = BD \times AB \rightarrow r^2 = BD \times \sqrt{a}$$

$$\Rightarrow BD = \frac{r^2}{\sqrt{a}} = \frac{r^2}{\sqrt{14}}$$

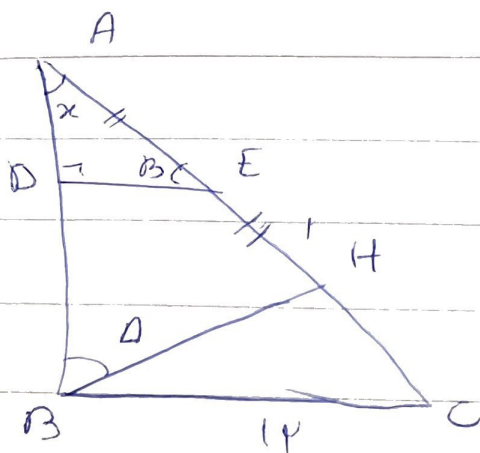
$$BD^2 = BE \times BC \rightarrow \left(\frac{r^2}{\sqrt{14}}\right)^2 = BE \times r$$

$$BE = \frac{r^2 \times r^2}{14 \times r} = \frac{r^3}{14}$$



Senobar

$$\sqrt{x^2 + 141} \Rightarrow x^2 + 141 = 14x$$



$$AC = 20$$

$$BH \times AC = AB \times BC$$

$$\rightarrow BH \times 20 = 12 \times 14$$

$$\Rightarrow BH = \frac{12 \times 14}{20} = 8.4$$

$$AH = \sqrt{14^2 - 8.4^2} = 11.2$$

(1, 10)

$$\Rightarrow \left. \begin{array}{l} \angle A = \angle A \\ \angle H = \angle D \end{array} \right\} \rightarrow \triangle ADE \sim \triangle AHB$$

$$\rightarrow \frac{DE}{BH} = \frac{AE}{AB}$$

$$\Rightarrow \frac{DE}{8.4} = \frac{12}{20}$$

$$DE = \frac{12 \times 8.4}{20} = 5.04$$

$$DE = 5.04$$