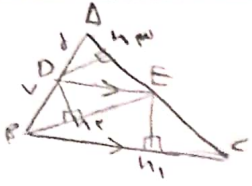


۱۴

مسئله ۱۴

مسئله ۱۴

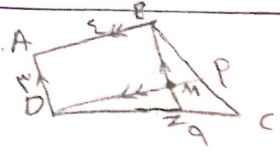


$$\frac{S_{BCE}}{S_{BDE}} = ? \rightarrow S_{BCE} = \frac{BC \times h_1}{2}, S_{BDE} = \frac{DE \times h_1}{2}$$

$$DE \parallel BC \rightarrow \frac{DE}{BC} = \frac{h_1}{h}$$

$$\frac{BC \times h_1}{2} \times \frac{2}{DE \times h_1} = \frac{BC}{DE} = \frac{12}{8} \checkmark$$

(۲)



$$BDC = \angle BDM$$

$$\frac{3}{DP} = \frac{13}{BZ} = \frac{DZ}{9}$$

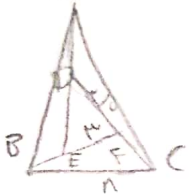
$$MPB \cong DMZ$$

$$\frac{MB}{DM} = \frac{MP}{MZ}$$

۰

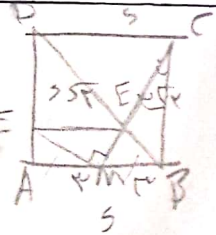
تجربه تیر ۱۴۰۳ داخل جواب = ۲

$$ABF = CAE = BCD \quad EF = 2 \quad DF = 10 \quad AB = ?$$



$$EDF \cong ABC \rightarrow \frac{2/8}{11} = \frac{2}{AB} \rightarrow 22 = 2/8 AB \rightarrow AB = 91 \checkmark$$

(۲)



$$BCE \cong AMF \quad DB = 65$$

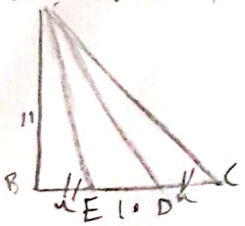
$$\frac{BC}{AM} = \frac{CE}{MF} \rightarrow MF = CE \rightarrow \frac{CE}{AM} = MF \rightarrow \frac{CE}{AM} = MF$$

$$\frac{1}{2} \times \frac{65}{2} \times 2 \rightarrow \frac{125}{2}$$

۰

ریاضی اردیبهشت ۱۴۰۳ داخل جواب = ۱۵/۲

$$A \quad DAE = ACD \quad BE = DC \quad DE = ?$$



$$ADE \cong ACD \quad \frac{AE}{AD} = \frac{AD}{AC} \rightarrow AD^2 = AE \cdot AC$$

$$\frac{AE}{10} = \frac{u+10}{AE} \rightarrow AE^2 = 10u + 100$$

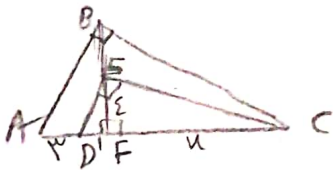
$$(u-10)(u-10) = 0 \rightarrow u = 10$$

$$AE^2 = 10u + 100 = 10(10) + 100 = 200$$

$$AE = \sqrt{200} = 10\sqrt{2}$$

(۲)

$$\angle CED = 90^\circ = \angle ABC \quad AD = 2 \quad EF = 2 \quad DF = 1 \quad BC = ?$$



$$AF = 2 \quad ABC \cong CEE$$

$$AB^2 = 2^2 + 2^2 = 8 \rightarrow AB = 2\sqrt{2}$$

$$BC^2 = (2+u)^2 - 4 \rightarrow (2(\frac{2+u}{2}))^2 = (2+u)^2 - 4 \rightarrow u = 2$$

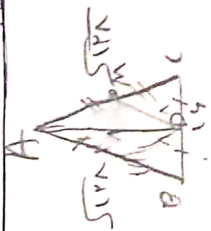
$$\rightarrow \frac{2+2}{2} = 2$$

۰

$$(EF)^2 = DF \times FC \rightarrow (2)^2 = FC \times 1 \rightarrow FC = 4$$

$$(BC)^2 = FC \times AC \rightarrow (BC)^2 = 4 \times 20 \rightarrow BC = \sqrt{80} = 4\sqrt{5}$$

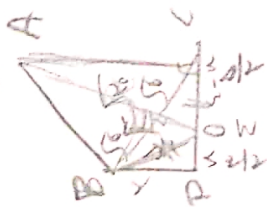
13/05/2024



$$AB^2 = 1^2 + 1^2 = \sqrt{2} = AB = \sqrt{2}$$

$$A = (1, 1) \quad M = (2, 2)$$

$$\frac{153 - 915 = -762}{43 + 21} = -18$$



$$BD = \angle CP = 3$$

$$BC \Rightarrow z^2 + r^2 \Rightarrow \sqrt{r_0} = 0$$

$$ABE \approx AEC$$

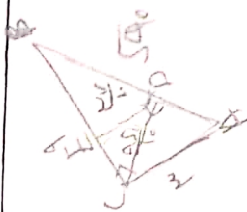
$$S = \frac{\sqrt{r_0} \times \sqrt{8}}{2} \Rightarrow \frac{1}{2} \sqrt{8}$$

$$\sqrt{\frac{AE}{AE}} = \sqrt{8}$$

$$\sqrt{(z-r)^2} = \sqrt{8} \Rightarrow AE = \sqrt{8}$$

$$BO^2 = r^2 + z^2 \Rightarrow r = \frac{z}{\sqrt{2}}$$

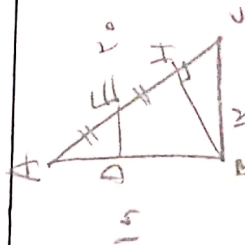
$$z-r \Rightarrow \frac{\sqrt{8} - \frac{\sqrt{8}}{\sqrt{2}}}{2} = \frac{\sqrt{2}}{2}$$



$$AC = 2, BC = 8, BE = ?$$

$$\angle C + \angle A = 90^\circ \rightarrow \angle C = 90^\circ - \angle A$$

[illegible]



$$BC = 12 \quad AB = 15$$

$$V + 1/2 V = 3/2 V \rightarrow P_0 A C = P_0 A E = P_0 A E$$