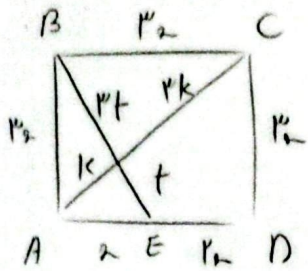
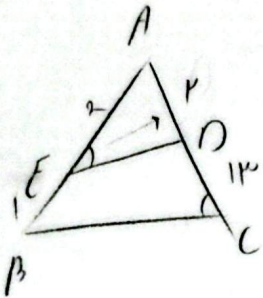


برای این روز ۱۱/۱۳



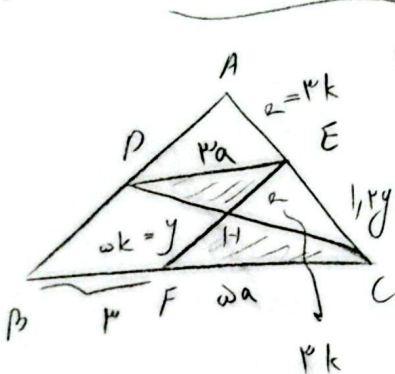
$$\frac{t}{2} = \frac{BE}{AC} = \frac{Ft}{Fk} = \frac{\sqrt{1.2}^2}{\sqrt{1.1}^2} = \sqrt{\frac{1.2}{1.1}} = \sqrt{\frac{\omega}{\mu}}$$

(1) ۱۰



$$\frac{2}{1} = \frac{p}{1p} \quad 1p_2 = p \quad z = \frac{p}{1p} \quad (z+4)(z-2) = 0 \quad \begin{cases} z = -4 \\ z = 2 \end{cases} \quad (2 \text{ u})$$

$$\frac{r}{1+r} = \frac{2}{10} \quad x + 2^r = 10 \quad 2^r + x - 10 = 0$$

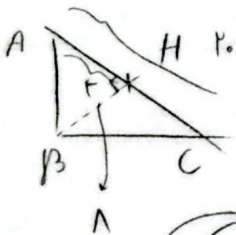


BC - ?

$$\frac{p_a}{p + \omega a} = \frac{pk}{qk} = \frac{1}{p}$$

$$\omega = \omega_k$$

$$\alpha = \frac{\mu}{\mu} = 1, \quad \beta C = \mu + \omega(1, \mu) = 1, \mu$$



$$AB = ? \quad BH^2 = AH \times HC \Rightarrow 7 \times 14 = BH^2 \quad BH = 7 \quad (KJ)$$

$$AB^r = BH^r + AH^r \Rightarrow AB^r = \cancel{rE} + \cancel{rE}$$

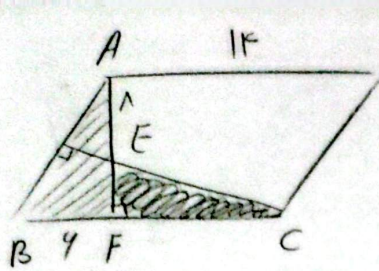
$$APB = \sqrt{\lambda} = \sqrt{k_x k_y \delta}$$

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

$$\frac{AP}{BP} = \frac{r\sqrt{5}}{r\sqrt{5}} = \frac{1}{1}$$

$$X \sqrt{0} \times BC = X \times 10$$

$$\beta C = \frac{K_c}{\sqrt{8}} \times \frac{\sqrt{0}}{\sqrt{0}} = \frac{2.0 \sqrt{0}}{0} = \infty$$

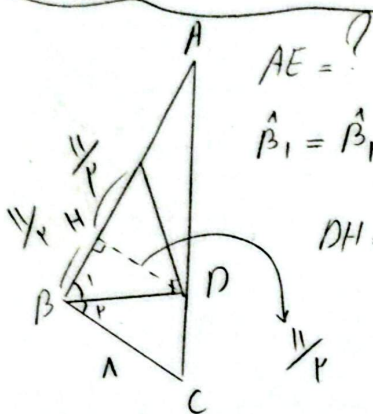


AF = 14 $\hat{P}AF \sim \hat{E}CF \Rightarrow$ (خط زاربه) (نکته)

$$\frac{BF}{EF} = \frac{AF}{CF} \Rightarrow \frac{4}{2} = \frac{14+2}{12} \Rightarrow 2(14+2) = 12 \times 2$$

$$2^2 + 14 \times 2 - 12 \times 2 = 0 \Rightarrow (2+14)(2-4) = 0 \Rightarrow 2 = 4$$

AF = 14 + 2 = 16 $\leftarrow$ جواب



AE = ?

$$\hat{A}_1 = \hat{A}_2 \Rightarrow \hat{A}_1 = \hat{A}_2 = 45^\circ$$

$$DH = BH = EH = \frac{11}{2}$$

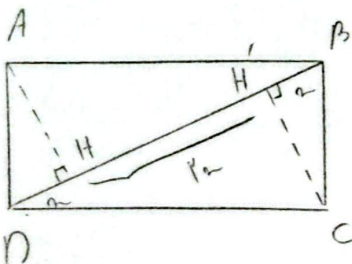
$$\frac{AH}{AB} = \frac{DH}{BC} \Rightarrow \frac{2 + \frac{11}{2}}{11} = \frac{\frac{11}{2}}{11} \Rightarrow \frac{2+11}{2+11} = \frac{11}{11}$$

$$\Rightarrow 11 \times 2 + 11 = 14 \times 2 + 11 \Rightarrow 2 = 8.5$$

نکته 2) چون $BC \parallel DH$ است پس الزاماً زاویه $\hat{B}$ هم برابر است

میدان $\hat{E}DB$ قائم الزامی و متساوی الساقین است

$\leftarrow$ ارتفاع DH میان دو برابر بر وتر است

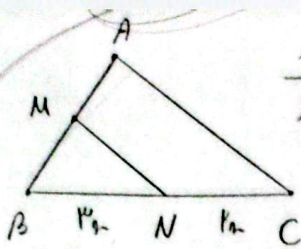


$\frac{P_{ABCD}}{P_{AHD}} = ?$ $AB^2 \cdot AD^2 = DH \times BD \Rightarrow y^2 = 2(16) \Rightarrow y = 4$

$AB^2 \cdot AD^2 = BD^2 - AD^2 \Rightarrow AB^2 = (16)^2 - (4)^2 = 12 \times 2 \Rightarrow AB = 2\sqrt{12}$

$ADH: AH^2 = AD^2 - DH^2 \Rightarrow AH^2 = (16)^2 - (4)^2 = 12 \times 2 \Rightarrow AH = \sqrt{12}$

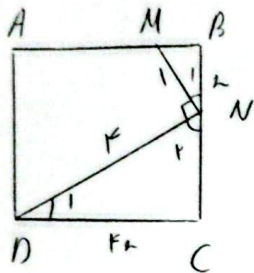
$\frac{P_{ABCD}}{P_{AHD}} = \frac{AB \times AD}{\frac{1}{2} AH \times DH} = \frac{(2\sqrt{12})(16)}{\frac{1}{2}(\sqrt{12})(4)} = 1 \leftarrow$ جواب



$$\frac{S_{BMN}}{S_{ABC}} = \frac{BM \times BN}{BA \times BC} = \frac{BM}{AB} \times \frac{1}{9} = \frac{1}{9}$$

(٩.٣)

$$\frac{BM}{AB} = \frac{1}{9} \Rightarrow \frac{BM}{AM} = \frac{1}{8} \Rightarrow \boxed{1/8}$$



$$\hat{MND} = 90^\circ \Rightarrow \hat{N}_1 + \hat{N}_2 = 90^\circ$$

$$\hat{DNC} \Rightarrow \hat{C} = 90^\circ \Rightarrow \hat{N}_1 + \hat{N}_2 = 90^\circ$$

$$\hat{BMN} \approx \hat{DNC} \Rightarrow \frac{DN}{MN} = \frac{DC}{BN} \Rightarrow$$

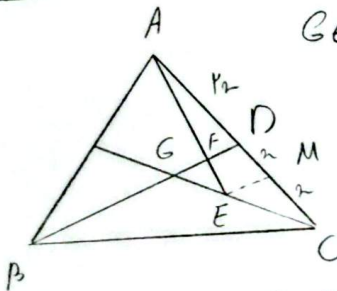
$$\frac{1}{1} = \frac{DC}{BN} \Rightarrow DC = BN$$

$$BC = DC = 1 \Rightarrow NC = 1$$

$$\hat{DNC} \Rightarrow DN^2 = DC^2 + NC^2 \Rightarrow 1^2 = (1)^2 + (1)^2 \Rightarrow 1^2 = 2 \Rightarrow 1 = \sqrt{2} \Rightarrow \boxed{1/\sqrt{2}}$$

$$S_{ABCD} = \left(\frac{1}{\sqrt{2}}\right)^2 = \frac{1}{2} = \boxed{1/2}$$

النتيجة



$$GE = EC \quad \frac{BD}{FD} = ?$$

$$\frac{GD}{BD} = \frac{1}{9}, AD = DC$$

(١٠.٣)

$$\hat{GDC}: EM \parallel GD \Rightarrow \frac{EC}{EG} = \frac{CM}{DM} \xrightarrow{EC=EG} 1 = \frac{CM}{DM}$$

$$\Rightarrow CM = DM$$

$$\hat{AEM}: FD \parallel EM \Rightarrow \frac{AD}{AM} = \frac{FD}{EM} \Rightarrow \frac{1}{9} = \frac{FD}{EM}$$

$$AD = 1 \Rightarrow CM = DM = 1$$

$$\Rightarrow EM = \frac{1}{9} FD \quad \hat{GDC}: EM \parallel DG \Rightarrow \frac{CM}{CD} = \frac{EM}{GD} \Rightarrow \frac{1}{2} = \frac{EM}{GD}$$

$$\Rightarrow GD = 2EM \Rightarrow GD = 2\left(\frac{1}{9} FD\right)$$

$$\frac{BD}{FD} = 9 \Rightarrow \frac{1}{9} = \frac{1}{9} \Rightarrow \frac{GD}{BD} = \frac{1}{9}$$