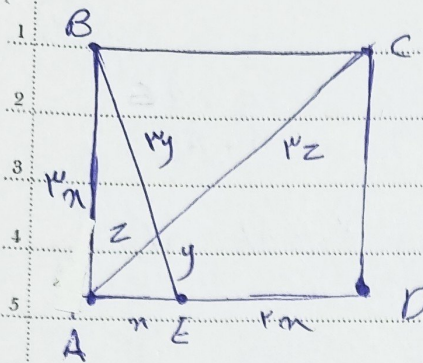




$$BE = \sqrt{10}m, AC = 2\sqrt{2}m \quad (1)$$

$$Kz = 2\sqrt{2}m \rightarrow z = \frac{2\sqrt{2}m}{K}, Ky = \sqrt{10}m$$

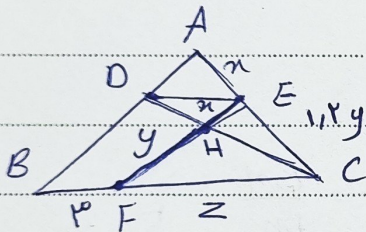
$$\rightarrow y = \frac{\sqrt{10}m}{K}$$

$$\frac{EF}{AF} = \frac{\frac{\sqrt{10}m}{K}}{\frac{2\sqrt{2}m}{K}} = \frac{\sqrt{10}}{2\sqrt{2}} \times \frac{2\sqrt{2}}{2\sqrt{2}} = \frac{\sqrt{5}}{2}$$

$$\begin{aligned} \hat{A} &= \hat{A} \\ \hat{E} &= \hat{C} \\ \hat{D} &= \hat{B} \end{aligned}$$

$$\rightarrow \triangle AED \sim \triangle ABC \rightarrow \frac{K}{n+1} = \frac{ED}{BC} = \frac{n}{10} \rightarrow n^2 + n = K_0 \rightarrow$$

$$K = \frac{10}{\sqrt{5}} \quad n = -4x$$

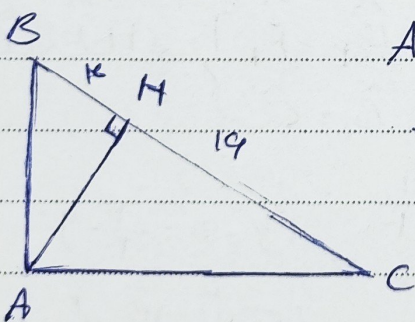


$$Ky = 2m \rightarrow \frac{n}{y} = \frac{K}{10} \rightarrow \frac{DE}{z} = \frac{K}{10} \quad (2)$$

$$\frac{DE}{BC} = \frac{AE}{AC} \rightarrow \frac{K}{10} = \frac{2}{2+2} \rightarrow \frac{K}{10} = \frac{2}{4} \rightarrow K = 5$$

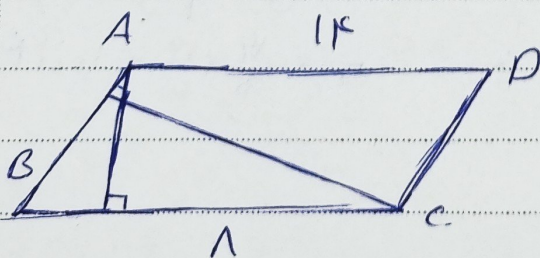
$$\rightarrow z = K_1 V_0 \rightarrow$$

$$BC = K + K_1 V_0 = 4.1 V_0$$



$$AH^2 = BH \times CH \rightarrow AH = 1, \triangle ABH \sim \triangle ABC \rightarrow (3)$$

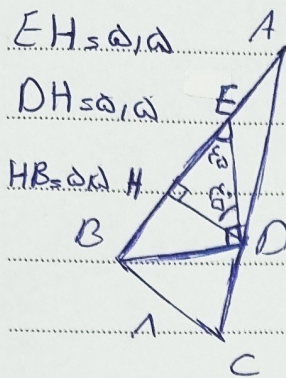
$$\frac{AC}{AB} = \frac{AH}{BH} = \frac{1}{K} = 1$$



$$\triangle BAF \sim \triangle ECF \rightarrow \frac{BF}{EF} = \frac{AF}{CF} \rightarrow (4)$$

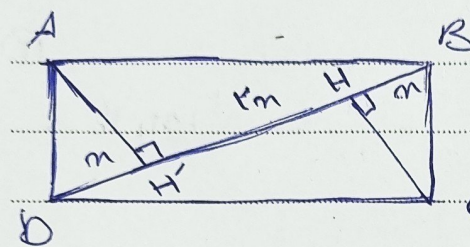
$$\frac{4}{n} = \frac{1+n}{1} \rightarrow n^2 + 1n = 4 \rightarrow n = 1$$

$$AF = 1 + n = 10$$



$$\hat{AHD} \sim \hat{ABC} \rightarrow \frac{AH}{AB} = \frac{HD}{BC} = \frac{\omega_1 \omega}{1} = \frac{\omega_1 \omega + AE}{11 + AE}$$

$$FF + 1AE = \omega_1 \omega AE + 401 \omega \rightarrow 11 \omega AE = 14 \omega \rightarrow AE = 4,4$$

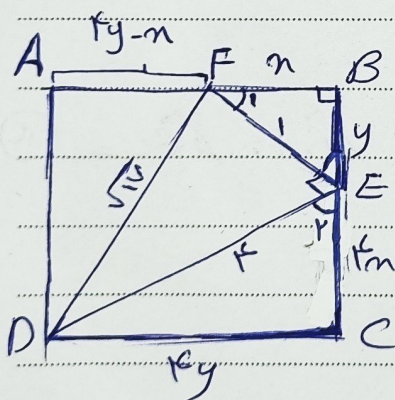


$$AH' = 11 \times \sqrt{m} \rightarrow AH' = 11\sqrt{m}$$

$$S_{\square} = 11 \times \frac{11\sqrt{m} \times \sqrt{m}}{2} = 11 \times \frac{11m}{2} = 11 \times 11 \times \frac{m}{2}$$

$$\rightarrow S_{\Delta} = \frac{11\sqrt{m} \times \sqrt{m}}{2} \rightarrow \frac{S_{\square}}{S_{\Delta}} = \frac{11 \times 11 \times \frac{m}{2}}{\frac{11\sqrt{m} \times \sqrt{m}}{2}} = 11$$

$$\frac{S_{BMN}}{S_{ABC}} = \frac{BM \times BN}{BA \times BC} = \frac{BM}{AB} \times \frac{BN}{BC} = \frac{1}{11} \rightarrow \frac{BM}{AB} = \frac{\omega}{9} \rightarrow \frac{BM}{AM} = \frac{\omega}{8}$$



$$q_0 + F_1 = q_0 + E_r \rightarrow \hat{E}_r = \hat{F}_1 \rightarrow \hat{FBE} \sim \hat{DCE}$$

$$\rightarrow \frac{FE}{DE} = \frac{FB}{EC} = \frac{BE}{AC} = \frac{1}{11}$$

$$F_y - n = \frac{1}{11} y$$

$$11m + y = F_y \rightarrow n = \frac{1}{11} y \rightarrow (\sqrt{11})^2 = (\frac{1}{11} y)^2 + F_y^2$$

$$\rightarrow y = \frac{1}{10}, DC = 11 \times \frac{1}{10} = \frac{11}{10} \rightarrow S_{\square} = \frac{11}{10} \times \frac{11}{10} = 1,21$$

$$AD = PM, DM = n, m \leq n \rightarrow EM \parallel GD \rightarrow \frac{EC}{EG} = \frac{CM}{DM} = 1 \rightarrow (10)$$

$$CM = DM = n \rightarrow AD = PM$$

$$FD \parallel EM \rightarrow \frac{AD}{AM} = \frac{FD}{EM} = \frac{PM}{PM} = \frac{FD}{EM} \rightarrow EM = \frac{1}{r} FD$$

5

$$EM \parallel PG \rightarrow \frac{CM}{CD} = \frac{EM}{GD} = \frac{n}{PM} = \frac{EM}{GD} \rightarrow GD = r EM \rightarrow GD = \frac{1}{r} FD$$

$$\rightarrow \frac{GD}{BD} = \frac{1}{r} \rightarrow \frac{\frac{1}{r} FD}{BD} = \frac{1}{r} \rightarrow \frac{BD}{FD} = 1$$