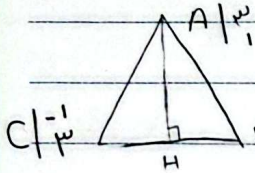


$$m = \frac{1+4}{1-1} = -V \rightarrow y = -Vx + b \xrightarrow{|_n} 1 = -1 + b \rightarrow b = 2 \quad y = -Vx + 2 \quad (1)$$

$$Vx = x + 1$$

$$b = 1 \quad m' = \frac{1}{V} \rightarrow 1 = \frac{1}{V} + b \quad b = \frac{1}{V} \quad y = \frac{x}{V} + \frac{1}{V} \quad (5)$$

(P)



$$BC_{\text{درب}} = \sqrt{(-1+1)^2 + (1-V)^2} = \omega$$

$$AH_{\text{درب}} = \frac{|1+1-\frac{\omega}{V}|}{\sqrt{\frac{10}{9} + \frac{\omega}{V}}} = \frac{\frac{10}{V}}{\frac{\omega}{V}} = 2$$

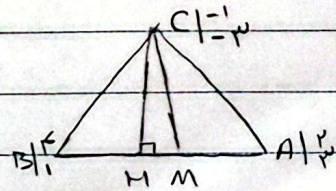
$$\omega - 2 = 1$$

$$y_{BC} = -\frac{1}{V}x + b \rightarrow y_{BC} = -\frac{1}{V}x + \frac{\omega}{V}$$

$$y = V + x \quad y = \frac{1}{V}x + 1 \quad \text{درب} = \frac{|V-1|}{\sqrt{1+1}} = \frac{4\sqrt{2}}{\omega}$$

$$\text{محاسبه} = \frac{4\sqrt{2}}{10} \times \frac{4\sqrt{2}}{10} \times \pi = \frac{1}{10}\pi$$

(2)



$$M = \left| \frac{\frac{1+1}{V} = 1}{\frac{1+1}{V} = 1} \right| \rightarrow M = 1$$

$$H = \frac{1}{V} \quad d = \sqrt{\left(\frac{1}{V}\right)^2 + \left(\frac{1}{V}\right)^2} = \frac{\sqrt{2}}{V}$$

(3)

$$y_{AB} = x + b \rightarrow y_{AB} = x + \omega \quad y_{CH} = x + b \rightarrow y_{CH} = x - 1 \rightarrow x = \frac{V}{V} \quad y = \frac{1}{V}$$

$$y = \frac{V}{\omega - m} = \frac{(Vm - 1)}{\omega - m} x$$

$$y = \frac{1}{Vm - 1} + \frac{m+1}{Vm - 1} x$$

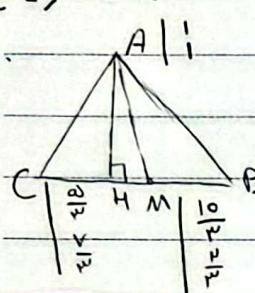
(4)

$$\frac{m+1}{Vm - 1} = \frac{\omega - m}{Vm - 1} \rightarrow 10m - 1m^2 - 10 + 1m = 1m^2 - 1m + 1m - 1$$

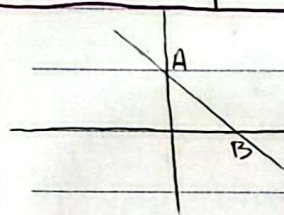
$$\omega m^2 - 1m + 1 = 0 \rightarrow \Delta < 0 \rightarrow \text{no solution}$$

تقاطع خطوط
 $AB \perp AC \Rightarrow \frac{p}{r} - \frac{q}{r} = r - 1 \rightarrow \begin{bmatrix} 1 \\ 1 \end{bmatrix}$ $BC \perp AB \Rightarrow \frac{p}{r} - \frac{q}{r} = r - 1 \rightarrow \begin{bmatrix} q \\ -1 \end{bmatrix}$ (4)

$AC \perp BC \Rightarrow r - q = r - 1 \rightarrow \begin{bmatrix} 1 \\ 1 \end{bmatrix}$



$$\frac{d_{AM}}{d_{AM}} = \frac{\sqrt{(\frac{p}{r})^2 + (\frac{1}{r})^2}}{1 + 1 - r} = \frac{\frac{a\sqrt{r}}{r}}{\sqrt{r}} = \frac{a}{r}$$



$$\sqrt{r_0} = \frac{|b|}{\sqrt{\frac{1}{r^2} + \frac{1}{r^2}}} \rightarrow r\sqrt{a} = \frac{r b}{\sqrt{a}} \rightarrow b = a$$

$y = -\frac{x}{r} + b$ $A|y \rightarrow y = 0 + a \rightarrow A|a$

$B|0 \rightarrow 0 = -\frac{x}{r} + a \rightarrow x = 10$ $B|0$

$$d_{AB} = \sqrt{(0-10)^2 + (a)^2} = \sqrt{100 + a^2} = \boxed{a\sqrt{a}}$$

$y = \frac{r}{m}x + r$ $y=0 \rightarrow x = -\frac{m}{r}$ $\rightarrow \left| -\frac{r}{1-m} - \left(-\frac{m}{r}\right) \right| = \frac{a}{r} \rightarrow \frac{-m^2 + m - r}{r - rm} = \pm \frac{a}{r}$ (1)

$y = (1-m)x + r$ $y=0 \rightarrow x = -\frac{r}{1-m}$

$\frac{r x}{r} = \frac{a}{r}$ $\rightarrow m = r / m = -r - \sqrt{a} / m = -r + \sqrt{a}$

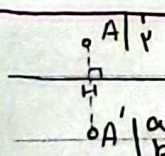
مساحت مثلث = $\frac{1}{2} \times \text{base} \times \text{height} = \frac{a}{r}$

ضرب = $\frac{1}{2} \times (-r - \sqrt{a}) \times (-r + \sqrt{a}) = \boxed{-r}$

$r - a = -1$

$y = r - r$ $H|1$ $H'|r$ M $\rightarrow x' = r - 1 = r$ $y' = -r + 1 = -r$ $H'|r$ (9)

$y' = rx + b$ $-r = 4 + b \rightarrow b = -9$ $\boxed{y' = rx - 9}$



$y = x + a$ $H: x + a = -x + r \rightarrow H|1$ $\rightarrow A'|r-1$ $\rightarrow A'|r$ (10)

$a = -r$ $b = 4 \rightarrow rb - a = 1r + r = \boxed{1a}$