

عرفان حقیقی یا زدهم سیر A

$$(1) \text{ نقطه وسط } \left| \begin{matrix} \mu \\ r \end{matrix} \right| \Rightarrow m' = \frac{1}{V} = \text{شیب} \Rightarrow \frac{\lambda + \frac{r}{r}}{r - r} = -V$$

$$y - 1 = \frac{1}{V} (x - \mu) \Rightarrow y = \frac{x}{V} + \frac{r}{V}$$

$$BC = \sqrt{\mu^2 + r^2} = \sqrt{2\omega} = \omega$$

$$m_{BC} = \frac{V - \mu}{-r + 1} = \frac{r}{-\mu} \Rightarrow m' = \frac{\mu}{r}$$

$$AH: y - 1 = \frac{\mu}{r} (x - \mu) \Rightarrow y = \frac{\mu x}{r} - \frac{\omega}{r}$$

$$BC: y - V = -\frac{r}{\mu} (x + r) \Rightarrow y = -\frac{rx}{\mu} + \frac{\omega}{\mu}$$

$$\frac{\mu x}{r} - \frac{\omega}{r} = -\frac{rx}{\mu} + \frac{\omega}{\mu} \Rightarrow 9x + 16x = r + 1\omega$$

$$r\omega x = \mu\omega \quad x = \frac{\mu\omega}{r\omega} = \frac{V}{\omega} \Rightarrow x = -\frac{1}{\omega}$$

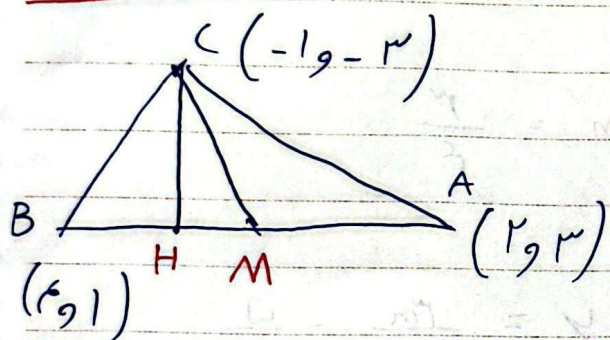
$$AH = \sqrt{1, \frac{r}{r} + 1, r^2} = \sqrt{r} = r$$

$$BC - AH: \omega - r = \mu$$

$$m = m' \Rightarrow a = r \quad d = \frac{1r - r}{\sqrt{r^2 + 1}} = \frac{1r}{\sqrt{r^2 + 1}}$$

$$\begin{aligned} -m + ry &= v \\ -rm + ry &= r \end{aligned} \Rightarrow \begin{cases} -rm + ry = 1r \\ -rm + ry = r \end{cases}$$

$$d = \frac{1r}{r\sqrt{a}} \Rightarrow \frac{1}{\sqrt{a}} \stackrel{\text{Leibniz}}{\Rightarrow} \frac{r}{\sqrt{a}} \Rightarrow -dw = \frac{9}{a} \pi$$



$$M = \begin{vmatrix} r \\ r \end{vmatrix}$$

: BA معادل خط

$$m = \frac{r-1}{r-r} = \frac{r}{-r} = -1$$

$$y - 1 = -1(x - 1) \Rightarrow y = -x + 2$$

$m = 1$: CH معادل

$$y + 3 = x + 1 \Rightarrow y = x - 2$$

برقرار:

$$x - 2 = -x + 2 \Rightarrow 2x = 4 \quad x = 2 \quad y = 0 \Rightarrow H(2, 0)$$

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

$$y = -\frac{1}{r}x + b \Rightarrow m + ry - rb = 0 \quad (V)$$

$$d = \frac{|-rb|}{\sqrt{r}} = \sqrt{r} \Rightarrow b = d$$

$$\Rightarrow y = -\frac{1}{r}x + d \Rightarrow A = \begin{vmatrix} 1 \\ 0 \end{vmatrix} \quad B = \begin{vmatrix} 0 \\ d \end{vmatrix}$$

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

$$y_A = (1-m)(\cdot) + r = y_A = r \Rightarrow A(1, r) \quad A$$

$$y_B = \frac{r}{m}(\cdot) - r \Rightarrow y_B = -r \Rightarrow B(1, -r)$$

$$(1-m)x + r = \frac{r}{m}x - r \Rightarrow \left(\frac{m - m^r - r}{m}\right)x = -r$$

$$x_c = \frac{-r m}{m - m^r - r} \Rightarrow \frac{r m}{m^r - m + r}$$

$$|r - (-r)| = r \quad \text{قوة}$$

$$\frac{r m}{m^r - m + r} \quad \text{ارتفاع}$$

$$\frac{d}{r} = r \times \left| \frac{r m}{m^r - m + r} \right|$$

مساواة

$$\frac{r m}{m^r - m + r} = \frac{d}{r} \Rightarrow d m^r - r(m + r) = 0$$

$$m' = 2$$

$$y = 2(x) - 3 = -3 \quad \text{پیدا کردن نقطه دلخواه}$$

اگر نقطه (x', y') قرینه $P(0, 3)$ نسبت به $M(2, 1)$ باشد

M وسط پاره خط PP' است

$$2 = \frac{0 + x'}{2} \Rightarrow x' = 4$$

$$-3 = \frac{3 + y'}{2} \Rightarrow y' = -9$$

$$-1 = 2(x') + b' \Rightarrow b' = -9$$

$$y = 2x - 9$$

معادله قرینه:

حل 1/1: $an + by + c = 0$ حيث $A \mid n_A$ y_A (1) قريب نقطة

$$p = \frac{an + by + c}{a^2 + b^2} \quad A' \mid \begin{array}{l} n_A - n_A p \\ y_A - y_A p \end{array}$$

$$p = \frac{1 - r + d}{1^2 + 1^2} = \frac{r}{2} = r$$

$$\left| \begin{array}{l} -r = a \\ r = b \end{array} \right. \Rightarrow \Lambda + r = 11$$