

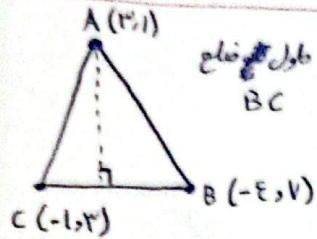
$$M = \left(\frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2} \right) = \left(\frac{1 + 3}{2}, \frac{-6 + 1}{2} \right) = (2, -\frac{5}{2})$$

$$m_1 = \frac{y_2 - y_1}{x_2 - x_1} = \frac{1 - (-6)}{3 - 1} = \frac{7}{2}$$

$$m_1 \times m_r = -1 \Rightarrow \frac{7}{2} \times m_r = -1 \Rightarrow m_r = -\frac{2}{7}$$

$$L_r \Rightarrow y = -\frac{2}{7}x + b \xrightarrow{\text{نقطه}} 1 = -\frac{2}{7}(3) + b \Rightarrow b = \frac{13}{7}$$

$$\hookrightarrow L_r \Rightarrow y = -\frac{2}{7}x + \frac{13}{7}$$



$$\text{طول } BC = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2} = \sqrt{(-1 - (-4))^2 + (3 - 1)^2} = \sqrt{3^2 + 2^2} = \sqrt{13}$$

A(3, 1)

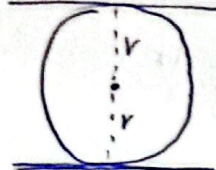
نقطه خط

$$\Rightarrow \frac{|ax_1 + by_1 + c|}{\sqrt{a^2 + b^2}} = \frac{|3 + 1 - 5|}{\sqrt{3^2 + 2^2}} = \frac{1}{\sqrt{13}}$$

$$\text{خواسته} \Rightarrow \omega - 2 = 3$$

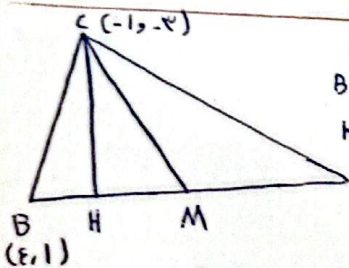
$$2y - x = 1, \quad \varepsilon y = ax + 2 \Rightarrow \text{موازی} \Rightarrow m_1 = m_2 \Rightarrow \frac{1}{2} = \frac{a}{\varepsilon} \Rightarrow a = \frac{\varepsilon}{2}$$

$$2y - x = 1, \quad \varepsilon y - 2x = 2 \xrightarrow{\text{موازی}} \frac{|c - c'|}{\sqrt{a^2 + b^2}} = \frac{|1 - 2|}{\sqrt{1^2 + 2^2}} = \frac{1}{\sqrt{5}}$$



$$\frac{r}{\sqrt{5}} = 2r \Rightarrow r = \frac{2}{\sqrt{5}}$$

$$\text{مساحت دایره} = \pi r^2 = \pi \left(\frac{2}{\sqrt{5}} \right)^2 = \frac{4\pi}{5}$$



$$CH \text{ خط} \Rightarrow BA \text{ عمود بر خط} \Rightarrow m_{BA} = \frac{1 - 2}{1 - 1} = \frac{-1}{0} = \text{undefined}$$

$$m_{CH} \cdot m_{BA} = -1 \Rightarrow m_{CH} \cdot \text{undefined} = -1 \Rightarrow m_{CH} = 1$$

$$CH \text{ خط} \Rightarrow y = x + b \xrightarrow{\text{نقطه}} -3 = -1 + b \Rightarrow b = -2 \Rightarrow y = x - 2$$

$$M \text{ نقطه} = \left(\frac{1 + (-1)}{2}, \frac{2 + 3}{2} \right) = (0, \frac{5}{2})$$

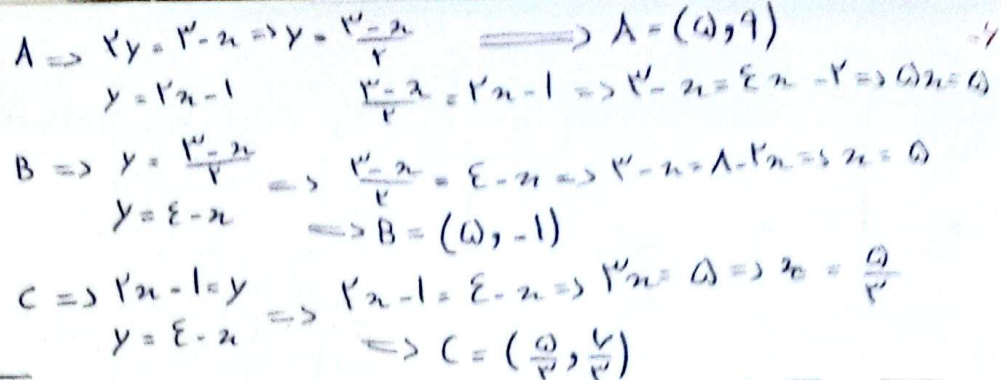
$$\text{نقطه خط} \Rightarrow \frac{|ax_1 + by_1 + c|}{\sqrt{a^2 + b^2}} = \frac{|1 - 3 + 2|}{\sqrt{1 + 1}} = \frac{0}{\sqrt{2}} = 0$$

$$(2m - 1)x + (5 - m)y - 7 = 0, \quad (m + 1)x - (2m - 1)y + 1 = 0 \Rightarrow \text{موازی}$$

$$m_1 \times m_2 = -1 \Rightarrow \frac{2m - 1}{5 - m} \times \frac{m + 1}{-(2m - 1)} = -1 \Rightarrow \frac{2m - 1}{5 - m} = \frac{2m - 1}{m + 1} \Rightarrow 2m - 1 = 2m - 1$$

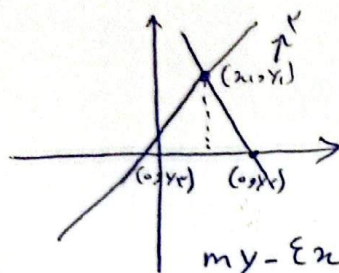
$$2m^2 - 2m + 3m - 2 = 2m^2 - 2m - 2 + 1 = 2m^2 - 2m - 1 = 0 \Rightarrow \Delta < 0$$

به ازای هیچ مقداری از m دو خط موازی همود نیستند.



$$M = \left(\frac{1}{r}, \frac{r}{r} \right) \Rightarrow \sqrt{\left(\frac{\omega}{r} \right)^2 + \left(\frac{r\omega}{r} \right)^2} = \sqrt{\left(\frac{\omega}{r} \right)^2 (1 + r^2)} = \frac{\omega}{r} \sqrt{1 + r^2}$$

$y = 0 \Rightarrow 0 = \frac{1}{r}x + Y \Rightarrow x = \varepsilon$
 $x = 0 \Rightarrow y = Y -$
 $1 + \varepsilon = C^r \Rightarrow C = \sqrt[r]{1 + \varepsilon} = Y$



$$\gamma = m(1-m)z + \gamma$$

$$\Rightarrow \varepsilon_{21} + \gamma_m = (m - m^*) \varepsilon_1 + \gamma_m \Rightarrow$$

$$\varepsilon_n - (m - m^*) \approx 0 \Rightarrow \frac{(m^* - m + \varepsilon)}{m^* - m + \varepsilon} \approx 0 \rightarrow$$

$$x=0 \Rightarrow m y = \{x = P_m \rightarrow m y = P_m \Rightarrow y = P\}$$

$$m y - \xi x = \psi_m \xrightarrow{y=0} -\xi x = \psi_m \Rightarrow m = -\frac{1}{\gamma} m$$

$$y = (1-m)x + c \Rightarrow (1-m)x = -c \Rightarrow x = \frac{-c}{1-m}$$

$$\frac{r_X \left| \frac{1}{r} m - \left(\frac{1}{1-m} \right) \right|}{r} = \frac{\omega}{r} \Rightarrow \left| \frac{m^r - m - \varepsilon}{r - r_m} \right| =$$

$$\rightarrow \gamma_m \gamma_{-m} - \Lambda = 10 - 10m \Rightarrow \gamma_m \gamma_{-m} - \Lambda = 0$$

$$P = \frac{-11}{-9} = -9$$

$$P_m^r - P_m - \Lambda = (0m - 10) \Rightarrow P_m^r - P_m + P = 0$$

$$P = \frac{P}{P} = 1$$

$$y = P_2 - P \quad , \quad (P_2 - P) = M$$

$$n_A = \frac{n+n'}{V} = 1 \Rightarrow n+n' = \varepsilon \Rightarrow n = \varepsilon - n'$$

$$y_A = \frac{y+y'}{1} = -y \Rightarrow y+y' = -\xi \Rightarrow y = -y' - \xi$$

$$y = \mu_n - \mu$$

$$y(y' - \varepsilon) = \mu(\varepsilon - \mu') - \mu$$

$$\Rightarrow -y' - \xi = \Lambda - \Psi_2' - \Psi = 1$$

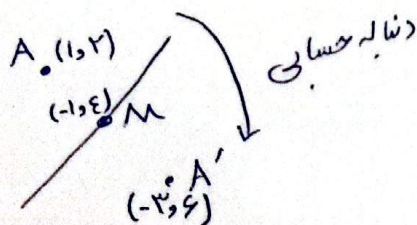
$$-y' = -y_2' + 9 \Rightarrow y' = y_2' - 9$$

$$y = x + 1, y = -2x + 6 \rightarrow (1, 2) \rightarrow 2 = -1 + b \Rightarrow b = 3$$

$$y = -x + 14$$

$$y = -x + 1$$

$$x + 0 = -x + 1 \Rightarrow x = -1 \Rightarrow M = (-1, 8)$$



$$A'(-3, 4)$$

$$A'(a, b)$$

$$\frac{A'(-r, s)}{A'(a, b)} \Rightarrow r \cdot b - a = 1r + 1s = 1 \pmod{6}$$