

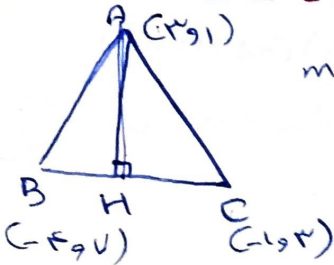
$$m_{AB} = \frac{\Delta y}{\Delta x} = \frac{15}{-2} = -7.5 \rightarrow AB = 7.5x + 30$$

$$-7.5x + b \rightarrow -15 + b = 1 \rightarrow b = 16$$

$$\rightarrow AB = 7.5x + 30 \quad (1)$$

مقدار خط عمود بر AB و نیز از نقطه وسط

$$CD \rightarrow \frac{1}{7.5}x + b \rightarrow \frac{2}{15} + b = 1 \rightarrow b = 1 - \frac{2}{15} = \frac{13}{15}$$



$$m_{BC} = \frac{\Delta y}{\Delta x} = \frac{5}{-6} = -\frac{5}{6}$$

$$-\frac{5}{6}x + b \rightarrow \frac{5}{6}x + b = 0 \rightarrow b = -\frac{5}{6}x$$

$$y = x + 5 \quad (2)$$

خط ارتفاع از A به BC
فاصله نقطه A به خط BC

$$\Rightarrow BC = -\frac{5}{6}x + \frac{5}{6} \rightarrow 5y = -5x + 5 \rightarrow 5x + 5y - 5 = 0$$

$$d = \frac{|ax_0 + by_0 + c|}{\sqrt{a^2 + b^2}} \rightarrow \frac{|12 + 3 - 5|}{\sqrt{14 + 9}} = \frac{10}{5} = 2 = AH$$

$$BC = \sqrt{\Delta y^2 + \Delta x^2} = \sqrt{14 + 9} = \sqrt{25} = 5 = BC$$

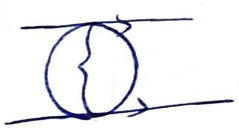
$$BC = AH = 5 - 2 = 3$$

دو خط موازی ضرب
در هم برابر باشد.

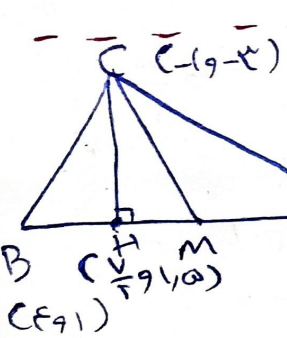
$$\begin{cases} 5y - 5x - 5 = 0 \rightarrow 5y - 5x - 5 = 0 \\ 5y - x - 5 = 0 \end{cases} \Rightarrow a = 2$$

فاصله دو خط از هم = قطر دایره

$$\Rightarrow d = \frac{|cc'|}{\sqrt{a^2 + b^2}} \rightarrow \frac{|-15 - (-5)|}{\sqrt{14 + 9}} = \frac{10}{5} = 2$$



$$r = \frac{4}{\sqrt{25}} \rightarrow S = \frac{4}{\sqrt{25}} \times \frac{4}{\sqrt{25}} \times \pi = \frac{16}{25} \pi = \frac{4}{5} \pi$$



$$m_{AB} = \frac{\Delta y}{\Delta x} = \frac{5}{-5} = -1 \rightarrow y - x + b \rightarrow -5 + b = 1 \rightarrow b = 6$$

$$AB = -x + 6 \rightarrow m_{CH} = 1 \rightarrow \frac{1}{5}x + b \rightarrow -1 + b = 6 \rightarrow b = 7$$

$$\Rightarrow CH = x - 7 \rightarrow -x + 6 = x - 7 \rightarrow b = -7$$

$$\rightarrow 7x = 7 \rightarrow x = 1 \rightarrow y = -1 + 6 = 5$$

$$m = \left(\frac{x_A + x_B}{2}, \frac{y_A + y_B}{2} \right) \rightarrow m = (1, 2.5) \Rightarrow d = \sqrt{\frac{1}{5} + \frac{1}{5}}$$

$$\Rightarrow d = \frac{1}{\sqrt{2}} = \frac{\sqrt{2}}{2}$$

۵

در فقط عمود
به نسبت ها
قرینه معلومند

$$c_{m+1}n - (r_{m-1})y + 1 = 0 \rightarrow (r_{m-1})y = c_{m+1}n + 1$$

$$y = \frac{m+1}{r_{m-1}}n + \frac{1}{r_{m-1}}$$

۲

$$(r_{m+1})n + (\omega_m)y - V = 0$$

$$\rightarrow y(\omega_m)y = -c_{m-1}n + V \rightarrow y = \frac{r_{m-1}}{m-\omega}n + \frac{V}{\omega-m}$$

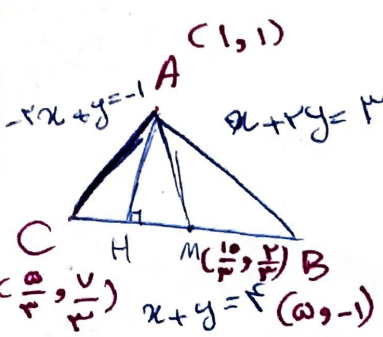
$$\Rightarrow \frac{m+1}{r_{m-1}} = \frac{\omega-m}{r_{m-1}} \rightarrow (r_{m-1})(m+1) = \underbrace{r_{m-1}(\omega-m)}_{m^2 - Vm + 1}$$

$$r_{m-1}m + r_{m-1} = -r_{m-1}m + 1 + \omega m - \omega$$

$$\omega m^2 - 1 r_{m-1}m + 1 \Delta < 0$$

هیچ مقدار m

4



$$AB \Rightarrow r y + m = r \Rightarrow y = -\frac{r}{r} + \frac{m}{r}$$

$$AC \Rightarrow y = r x - 1$$

$$BC \Rightarrow y = -x + r$$

$$B \Rightarrow -\frac{r}{r} + \frac{m}{r} = -x + r \Rightarrow -x + r = -r x + 1 \Rightarrow x = \omega, y = -(\omega) + r = -1$$

$$C \Rightarrow -x + r = r x - 1 \Rightarrow x = \frac{\omega}{r}, y = -(\frac{\omega}{r}) + r = \frac{r}{r}$$

$$A \Rightarrow -\frac{r}{r} + \frac{m}{r} = r x - 1 \Rightarrow -x + r = r x - 1 \Rightarrow \omega x = \omega \Rightarrow x = 1, y = r(1) - 1 = 1$$

$$BC = \frac{\Delta y}{\Delta x} = \frac{\frac{10}{r}}{-\frac{10}{r}} = -1 \rightarrow -x + b \rightarrow -\omega + b = -1 \rightarrow b = r \rightarrow BC = -x + r$$

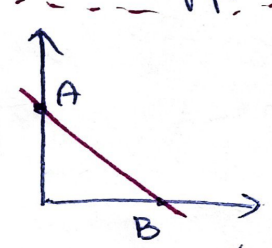
$$AH = \frac{|1 + 1 - r|}{\sqrt{1 + 1}} = \frac{r}{\sqrt{2}}$$

$$\frac{AM}{AH} = \frac{r}{r}$$

$$AM = m, A \text{ slope} = \sqrt{\Delta y^2 + \Delta x^2} = \sqrt{\frac{r^2}{q} + \frac{1}{q}} = \frac{\sqrt{\omega}}{r}$$

$$\frac{AM}{AH} = \frac{\frac{\sqrt{\omega}}{r}}{\frac{r}{r}} = \frac{\sqrt{\omega} \times \sqrt{r}}{q} = \frac{\sqrt{100}}{q} = \frac{10}{q} = \frac{\omega}{r}$$

5



$$y + \frac{1}{r} x + b = 0 \Rightarrow \frac{\sqrt{10 + 0 + b^2}}{\sqrt{1 + \frac{1}{r^2}}} = \sqrt{20}$$

$$\sqrt{b^2} = \sqrt{\frac{r^2}{\omega}} \times \sqrt{\frac{\omega}{r}} = \sqrt{r \omega} = \omega \rightarrow |b| = \omega$$

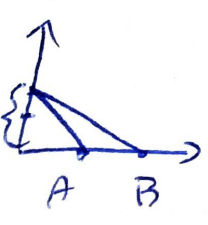
$$b = \pm \omega \begin{cases} \rightarrow y = \frac{1}{r} x + \omega \rightarrow r y + x - \omega = 0 \rightarrow A(0, \omega) \\ \rightarrow y = \frac{1}{r} x - \omega \rightarrow r y + x + \omega = 0 \rightarrow A(0, -\omega) \end{cases}$$

$$AB = \sqrt{100 + r \omega} = \sqrt{120} = \omega \sqrt{\omega}$$

6

$$A \Rightarrow m y - r x = r m \rightarrow m y = r x + r m \rightarrow y = \frac{r}{m} x + r$$

$$B \Rightarrow y + m x = x + r \rightarrow y = (1 - m) x + r$$



$$\frac{1}{r} \times r \times AB = \frac{\omega}{r} \Rightarrow AB = \frac{\omega}{r}$$

$$A \Rightarrow \frac{r}{m} x + r = 0 \rightarrow \frac{r}{m} x = -r \rightarrow x = -\frac{m}{r}$$

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

عرفت از شما ها تست کردی
و برای اینکه محور ها را قطع کنی باید
نسبت متغی داشته باشی
از تقاطع شیب 2
فاصله شیب 2 فاصله نقاط هر فرد
فاصله 2 عدد r

$$\sqrt{0 + \left(\frac{r}{m-1} - \left(-\frac{m}{r} \right)^2 \right)} = \frac{\omega}{r} \rightarrow \sqrt{\left(\frac{r + m^2 - m^2}{r(m-1)} \right)} = \frac{\omega}{r} \rightarrow \left| \frac{m^2 - m + r}{r(m-1)} \right| = \pm \frac{\omega}{r}$$

نکته ۱

$$\textcircled{1} \rightarrow \frac{m^2 - m + r}{r(m-1)} = \frac{\omega}{r} \rightarrow \omega m - \omega = m^2 - m + r \rightarrow m^2 - 9m + 9 = 0$$

$$\Rightarrow (m-3)^2 = 0 \rightarrow m = 3$$

$$\textcircled{2} \rightarrow \frac{m^2 - m + r}{r(m-1)} = -\frac{\omega}{r} \Rightarrow -\omega m + \omega = m^2 - m + r \rightarrow m^2 + 4m - 1 = 0$$

$$m = \frac{-4 \pm \sqrt{16 + 4}}{2} = \frac{-4 \pm 2\sqrt{5}}{2} = -2 \pm \sqrt{5}$$

$$\prod_x (-2 - \sqrt{5})(-2 + \sqrt{5}) = -3$$

$$4 - 5 = -1$$

$$y = 2x - 3 \xrightarrow{x=0} y = -3 \rightarrow (0, -3) = \text{نقطه دگوا}$$

$$(0, -3) \text{ و } m(2, -1) \rightarrow (4, -1)$$

$$y = 2x + b \xrightarrow{(4, -1)} 2(4) + b = -1 \rightarrow 8 + b = -1 \rightarrow b = -9$$

$$y = 2x - 9$$

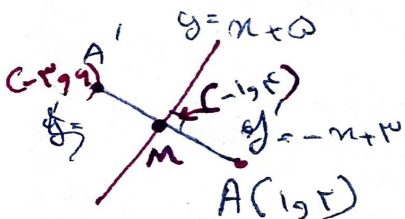
۹) قریب خط نیست به نقطه فاسی

برابر ۱ خط اولی دارد. بنابراین

فانسیست نقطه ای از خط انتقال

تصحیح و معادله خط جدید را بنویسید

آن حساب کنید



$$y' = -x + b \xrightarrow{(1, 2)} -1 + b = 2 \rightarrow b = 3$$

$$\Rightarrow y' = -x + 3$$

$$m = -x + 3 = x + 2 \rightarrow 2x = -5 \rightarrow x = -2.5 \text{ و } y = 4$$

$$\left. \begin{aligned} \frac{1+x'}{2} &= -1 \rightarrow 1+x' = -2 \rightarrow x' = -3 \\ \frac{2+y'}{2} &= 4 \rightarrow 2+y' = 8 \rightarrow y' = 6 \end{aligned} \right\} \Rightarrow A' = (-3, 6)$$

$$a = -3, b = 6 \Rightarrow 2b - a = 2(6) - (-3) = 12 + 3 = 15$$

۱۰