

الف)  $\left| \begin{smallmatrix} 5 & 1 \\ -2 & -1 \end{smallmatrix} \right| \rightarrow \left| \begin{smallmatrix} 4 & 5 \\ 2 & -2 \end{smallmatrix} \right| \quad m = \frac{2 - (-2)}{4 - 2} = \frac{4}{2} = 2 \Rightarrow y - 2 = 2(x - 4) \quad \left| \begin{smallmatrix} 4 \\ 2 \end{smallmatrix} \right|$   
 $y = -2x + 12 + 2 \Rightarrow y = -2x + 14$   
 ب)  $2x + y = 11 \rightarrow m = -2 \Rightarrow y - 2 = -2(x - 4) \Rightarrow y = -2x + 8 + 2 \Rightarrow y = -2x + 10$   
 ج)  $x + y = 1 \rightarrow m = -1 \Rightarrow y - 2 = -1(x - 4) \Rightarrow y = -x + 4 + 2 \Rightarrow y = -x + 6$   
 د)  $\frac{\pi}{3} \rightarrow \tan\left(\frac{\pi}{3}\right) = \sqrt{3} \Rightarrow y = \sqrt{3}x + b \rightarrow 2 = \sqrt{3} + b \Rightarrow b = 2 - \sqrt{3} \Rightarrow y = \sqrt{3}x + 2 - \sqrt{3}$

الف)  $\left| \begin{smallmatrix} -1 & 1 \\ 2 & 5 \end{smallmatrix} \right| \rightarrow \left| \begin{smallmatrix} 2 & -1 \\ 5 & 1 \end{smallmatrix} \right| \quad \sqrt{(2 - (-1))^2 + (5 - 1)^2} = \sqrt{9 + 16} = 5$   
 ب)  $2x + y = 2 \rightarrow \frac{|2 + 12 - 2|}{\sqrt{2^2 + 1^2}} = \frac{12}{\sqrt{5}} = 12\sqrt{5}$

فاصله این دو خط  
 $\frac{|1 - 4(2 + 4)|}{\sqrt{2^2 + 1^2}} = \frac{2}{\sqrt{5}} = \frac{2\sqrt{5}}{5}$   
 الف)  $2x + y = 2$  و  $4x + y = 8$   
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 $2x + y = 2 \rightarrow y = 2 - 2x$   
 $4x + y = 8 \rightarrow y = 8 - 4x$   
 $2 - 2x = 8 - 4x \Rightarrow 2x = 6 \Rightarrow x = 3$   
 $y = 2 - 2(3) = -4$   
 $(3, -4)$

فاصله خط عمود بر خط  
 $\frac{|2x - y - 1|}{\sqrt{4 + 1}} = \frac{|2x + y - 3|}{\sqrt{4 + 1}} \Rightarrow |2x - y - 1| = |2x + y - 3|$   
 $2x - y - 1 = 2x + y - 3 \Rightarrow -y - 1 = y - 3 \Rightarrow -2y = -2 \Rightarrow y = 1$   
 $2x - y - 1 = -(2x + y - 3) \Rightarrow 2x - y - 1 = -2x - y + 3 \Rightarrow 4x = 4 \Rightarrow x = 1$   
 $(1, 1)$

زاویه بین دو خط  
 $y + 2x = 3$  و  $y - 2x = 5$   
 $\tan \alpha = \frac{m - m'}{1 + mm'} \Rightarrow \frac{1 - 2}{1 - 4} = \frac{1}{3} \Rightarrow \alpha = \arctan\left(\frac{1}{3}\right)$   
 $\alpha = 18^\circ$

خاصہ ایچ آر (الف)

$$\sqrt{(w_{\text{circ}}^+)^r + (-r-k)^r} = \sqrt{4d + w_4} = 10$$

تقریباً ۱۰۰ سال در

$$M = \begin{pmatrix} \frac{u_0}{r} = -1 \\ -\frac{r + \varepsilon}{r} = 1 \end{pmatrix} \quad \boxed{M = (-1, 1)}$$

$$\begin{vmatrix} -1 \\ -1\mu \end{vmatrix} \quad \begin{vmatrix} -1 \\ \mu \end{vmatrix} \quad \begin{vmatrix} \mu \\ 1 \end{vmatrix}$$

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مساحت این مثلث

تبریکات

$$\frac{\begin{vmatrix} -1 & -1 & 1 \\ -r & r & 1 \\ r & 1 & 1 \end{vmatrix}}{1 - \frac{r}{1-r} - \frac{r}{1-r}} = \frac{r}{r} = 1$$

در نقش (الف)

$$6 \quad \frac{-1 - r + \mu}{\mu} = -\frac{q}{\mu} = -\mu$$

$$\frac{-1\mu + \mu + 1}{\mu} = -\frac{q}{\mu} = -\mu$$

$$\begin{array}{c|c} 6 & \begin{array}{c} - \\ - \end{array} \end{array}$$

$$\text{ii) } \lim_{x \rightarrow \infty} \frac{x+1}{x-\mu} = -1$$

→  $y = \frac{-x+1}{-x-\mu}$

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

نسبت به همبستگی  $\rightarrow x = \frac{r_{j+1}}{r_j - r}$

c)  $\frac{w_i}{f_i} = \frac{w_j}{f_j} \rightarrow -x = \frac{-f_j + 1}{-f_j - \mu}$

$$f(r_n + r) = 1 - p_n$$

$$y = \frac{1 - \mu_n}{r_n + r}$$

انتقال من  $\frac{1}{2}$  إلى  $\frac{1}{3}$  (الف)

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$$x' = x - r \Rightarrow x = x' + r$$

$$g' = g + \kappa \Rightarrow g = g' - \kappa$$

$$y = \frac{r_{x+1}}{x - \mu} \longrightarrow y' - \mu = \frac{r(x+r) + 1}{\cancel{x+r} - \mu}$$

$$y' = \frac{r_2' + \omega}{1} + \mu$$

$$y' = \frac{r_{x'} + \delta + \mu_{x'} - \mu}{x' - 1}$$

$$y' = \frac{\partial x' + r}{x' - 1}$$

$$J = \frac{1}{\pi - \mu}$$

$$\begin{aligned} \mu & \quad x' = x - \mu, \quad y' = y - \mu \\ r & \quad x = x' + \mu, \quad y = y' + \mu \end{aligned}$$

$$y' + r = \frac{r(x' + w) + 1}{x' + w - w} = \frac{r_2' + r + 1}{r_2' + w}$$

$$D' = \frac{r' + v}{r'} - r = \frac{r' + v - r r'}{r'} = \frac{v}{r'} D = \frac{v}{r'} \frac{1}{\beta^2}$$

ذفره (الف)

$$r \quad \cancel{w_2} + \frac{F_2}{\Delta} = r$$

$$x - dy = 1 \xrightarrow{x \rightarrow \infty}$$

$$P_x + P_y = P$$

$$-x + 12y = -10$$

$$19y = -1 \Rightarrow y = \frac{-1}{19}$$

$$x - 2y = 1 \quad \xrightarrow{y = -\frac{1}{19}}$$

$$x + \frac{d}{19} = 1 \Rightarrow x = \frac{15}{19}$$

$$\begin{cases} \mu_2 + f = r \\ x - dy = 1 \end{cases}$$

$$x = -\frac{k+1}{-10-k} \Rightarrow x = \frac{-1k}{-19} \Rightarrow \frac{1k}{19}$$

$$y = \frac{w - r}{-10 - r} \Rightarrow y = \frac{1}{-1}$$