

سوال (۱)

$$|F|_L(F, 2)$$

$$m = \frac{F \rightarrow F+2}{-1 \rightarrow F-2} = -4x+18 \Rightarrow |y = -4x+18| \quad \Leftarrow | \frac{5}{-2} | \quad \text{(الف)}$$

(ب)

$$2y+4x=-1 \Rightarrow m = \frac{-4}{2} = (-2) \Rightarrow y = -2x+14$$

(ج)

$$x+3y=1 \Rightarrow m_{d_1} = -\frac{1}{3} \Rightarrow m_{d_2} = 3 \Rightarrow y = 3x-1$$

$$\frac{4}{3} \Rightarrow \tan \frac{\pi}{3} = m \Rightarrow \frac{\sqrt{3}}{1} \Rightarrow y = \sqrt{3}x - 2\sqrt{3}+2 \quad \text{(د)}$$

سوال (۲) نقای ۱۲

$$(-1, 7) \Rightarrow \sqrt{3^2+4^2} = \sqrt{5^2} \Rightarrow \textcircled{5} \quad \text{(الف)}$$

$$\frac{|9+12-3|}{\sqrt{3^2+4^2}} = \frac{18}{5} = \textcircled{3} \quad \text{(ب)}$$

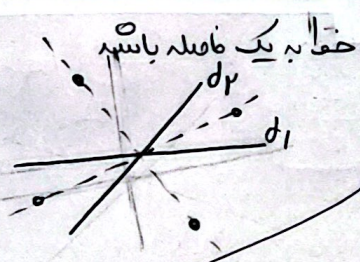
سوال (۳)

$$ax+by = \frac{C+C'}{2} \Rightarrow \begin{cases} 2x+3y=4 \\ 2x+3y=6 \end{cases} \Rightarrow 2x+3y=5$$

$$\frac{|C-C'|}{\sqrt{4+9}} = \frac{2}{\sqrt{13}} = \frac{2\sqrt{13}}{13}$$

سوال (۴)

خاصیت شیب ساز = از ۲ ضلع زاویه به یک فاصله است = ۲ خط به یک فاصله باشند



$$\frac{|3x-2y-1|}{\sqrt{13}} = \frac{|2x+3y-3|}{\sqrt{13}}$$

$$\begin{aligned} 3x-2y-1 &= 2x+3y-3 \Rightarrow x-5y+2=0 \\ 3x-2y-1 &= -2x-3y+3 \Rightarrow 5x+y-4=0 \end{aligned} \Rightarrow \text{معمود}$$

سوال (۵)

$$\tan \alpha = \left| \frac{m-m'}{1+mm'} \right| \quad m_1=2 \quad m_2=-3$$

$$\tan \alpha = \frac{2}{1-6} = -1 \Rightarrow \textcircled{1} \Rightarrow \tan \alpha = 1 \Rightarrow \alpha = 45^\circ \Rightarrow \text{زاویه تند}$$

زاویه باز = 135°

$$\Rightarrow \begin{cases} 3 + \omega = 1 \\ 4 - \omega = 9 \end{cases} \Rightarrow \sqrt{1^2 + 9^2} = \sqrt{10} \Rightarrow 10$$

سوال (4) اف
جواب (ب)

$$\left(\frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2} \right) \Rightarrow (-1, 1)$$

$$\left(\frac{-10 - 2 + 3}{3}, \frac{-13 + 3 + 1}{3} \right) \Rightarrow (-3, -3) \quad \text{سوال (2) اف}$$

$$\begin{bmatrix} -10 & -13 & 1 \\ -13 & 3 & 1 \\ 3 & 1 & 1 \end{bmatrix} \Rightarrow \begin{aligned} & -30 - 39 - 2 - (9 - 10 + 12) \\ & = -94 = 48 \Rightarrow \div 2 = 24 \end{aligned}$$

$$-y = \frac{2x+1}{2x-3} \quad \text{سوال (8) اف}$$

$$y = \frac{-2x+1}{-2x-3} \quad \text{ب}$$

$$x = \frac{2y+1}{2y-3} \Rightarrow \frac{+3x+1}{2x-2} \quad \text{ج}$$

$$-y = \frac{-3x+1}{-2x-2} \quad \text{د}$$

$$x' + 2 = x$$

$$x' = x - 2$$

$$y' = y + 3$$

$$\Rightarrow y' - 3 = \frac{2x' + \omega}{x' - 1} \Rightarrow y' = \frac{2x' + 2}{x' - 1} \quad \text{سوال (9) اف}$$

$$x' = x - 3$$

$$y' = y - 2$$

$$\Rightarrow y' + 2 = \frac{2x' + \omega}{x' - 1} \Rightarrow y' = \frac{2x' + 2}{x' - 1} \quad \text{ب}$$

$$3x + 4y = 2$$

$$x - \omega y = 1 \Rightarrow x = 1 + \omega y$$

$$3x - 1\omega y = 3$$

$$\begin{aligned} & -\frac{3}{19} \quad \frac{3\omega}{19} \\ & 3x + 4y = 2 \Rightarrow 19y = -1 \Rightarrow y = \frac{-1}{19} \\ & x = \frac{19}{19} \end{aligned} \quad \text{سوال (10)}$$

$$x = \frac{19 + 10 = 29}{-19}$$

$$y = \frac{3 - 1 = 2}{-19}$$

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

$$-10 - 19$$