

$$A|K$$

(2) (1)

$$m = \frac{\Delta y}{\Delta x} = \frac{k}{-1} = -k$$

$$\leftarrow \begin{array}{c|c} 12 & 5 \\ \hline 2 & -2 \end{array} \text{ (الف)}$$

→ $y = -\varepsilon_m + 11$ ✓

$$\rightarrow y = -5m + 18$$

$\leftarrow -\frac{2}{1} = \frac{-4}{2} \cdot \frac{\text{قند صند ۲}}{\text{صند ۱}} \leftarrow 2y + 4x + 1 = 0$ (ب)

$$\rightarrow y = 12x - 10$$

$$\Leftarrow \frac{-1}{x} = \frac{x \text{ قدیمی ضرب } x}{y \text{ قدیمی ضرب } y} \Leftarrow x + y - 1 = 0 \quad (c)$$

$$y = \sqrt{\kappa} x - \varepsilon \sqrt{\kappa} + \gamma$$

$$\leftarrow \frac{R}{\mu} = 4^\circ \rightarrow \tan 4^\circ = \sqrt{\mu} \quad (>)$$

A12

(1) (2)

$$\rightarrow \sqrt{(u_1 - u_c)^2 + (y_1 - y_c)^2} = \sqrt{(u_c)^2 + (\epsilon^T)} = \textcircled{5} \quad \checkmark \quad |u_c|^{-1} \quad (\text{اف})$$

$$\rightarrow d = \frac{|ax+by+c|}{\sqrt{a^2+b^2}} = \frac{|4+12-11|}{\sqrt{4+12}} = \textcircled{2} \quad A/r, r_m + r_y - r = 0 \quad \hookrightarrow$$

$$x^2 + y^2 - 4 = 0, \quad 4x + 4y - 1 = 0$$

(۲) (۳)

$$\hookrightarrow \epsilon_m + 4y - 12 = 0, \epsilon_m + 4y - 11 = 0$$

(الف)

$$\rightarrow am + by + \frac{c+c'}{r} = 0 \Rightarrow \boxed{5m + 4y - 10 = 0} \quad \checkmark$$

$$\frac{|c - c'|}{\sqrt{a^2 + b^2}} = \frac{|-12 - (-12)|}{\sqrt{1^2 + 1^2}} = \frac{0}{\sqrt{2}} = \frac{0}{1.414} = 0$$



$$3x - 2y - 1 = 0, 2x + 3y - 3 = 0$$

(۴) ۱, ۵

$$\frac{|a_1x_1 + b_1y_1 + c_1|}{\sqrt{a_1^2 + b_1^2}} = \frac{|a_2x_2 + b_2y_2 + c_2|}{\sqrt{a_2^2 + b_2^2}}$$

$$\rightarrow \frac{|3x - 2y - 1|}{\sqrt{9 + 4}} = \frac{|2x + 3y - 3|}{\sqrt{4 + 9}} \rightarrow \begin{cases} 3x - 2y - 1 = 2x + 3y - 3 \\ -x - 5y + 2 = 0 \end{cases}$$

این یک روش مبتدیان است

$$2x + 3y - 3 = -3x + 2y + 1 \rightarrow y + 5x = 4$$

اینه معلوم بالایی!

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

$$\frac{\tan \alpha - \tan \beta}{1 + \tan \alpha \tan \beta} = \frac{-\frac{3}{4} - \frac{2}{1}}{1 + (-\frac{3}{4} \times 2)} = \frac{-\frac{5}{4}}{-\frac{5}{4}} = 1$$

$$\rightarrow \tan \theta = 1 \rightarrow \theta = 45^\circ$$

$$A \left| \frac{3}{-2} \right|, B \left| \frac{-5}{4} \right| \quad \sqrt{(1)^2 + (4)^2} = 5$$

(۲)

$$\left(\frac{3(-5)}{2}, \frac{-2+4}{2} \right) = (-1, 1)$$

$$A \left| \frac{3}{1} \right|, B \left| \frac{-2}{1} \right|, C \left| \frac{-10}{-14} \right| \quad \text{میانگین} = \left(\frac{3-2-10}{3}, \frac{1+\frac{3-14}{3}}{3} \right)$$

(۲)

$$\begin{cases} x = 9 + 2y - 10 = 2y - 1 \\ y = -2 - 3x - 29 = -31 \end{cases}$$

$$\rightarrow \text{میانگین} = (-3, -3)$$

Genobar

$$S = \frac{1}{2} |M - N| = \frac{1}{2} \times 42 = 21$$

$$y = \frac{r_m + 1}{\varepsilon_m - r}$$

یا تو صورت ضرب میشه
یا تو مخارج!

$$y = \frac{r_m + 1}{\varepsilon_m - r} \Rightarrow y = \frac{-r_m - 1}{+ \varepsilon_m - r}$$

(1)

(1.75)

~~هو هو هو هو~~

$$y = \frac{-r_m + 1}{-\varepsilon_m - r}$$

(ب)

$$x = \frac{ry + 1}{\varepsilon y - r}$$

$$\rightarrow \varepsilon xy - r_m = ry + 1$$

(c)

$$\rightarrow \varepsilon xy - ry = r_m + 1 \rightarrow y(\varepsilon_m - r) = r_m + 1$$

$$\Rightarrow y = \frac{r_m + 1}{\varepsilon_m - r}$$

$$-x = \frac{-ry + 1}{-\varepsilon y - r}$$

$$\rightarrow \varepsilon xy + r_m = -ry + 1$$

$$\rightarrow \varepsilon xy + ry = -r_m + 1$$

$$\rightarrow y(\varepsilon_m + r) = -r_m + 1$$

$$\rightarrow y = \frac{-r_m + 1}{\varepsilon_m + r}$$

(د)

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

$$y = \frac{r_m + 1}{x - 1}$$

(4) الف

(2)

$$y + r = \frac{r_m + 1}{(m+r) - r} \rightarrow y = \frac{r_m + 1}{m}$$

$$y = \frac{r_m + 1}{m}$$

(ج)

الف) حذف (۱۰) (۲)

$$\begin{cases} 3x + 4y = 2 \\ x - 5y = 1 \end{cases} \xrightarrow{\times 4} \begin{cases} 3x + 4y = 2 \\ 4x - 20y = 4 \end{cases}$$

$$14y = -1 \rightarrow y = \frac{-1}{14} \rightarrow x = \frac{14}{14}$$

ب) کلام

$$\begin{cases} 3x + 4y = 2 \\ x - 5y = 1 \end{cases} \quad \begin{bmatrix} 3 & 4 \\ 1 & -5 \end{bmatrix} \begin{bmatrix} x \\ y \end{bmatrix} = \begin{bmatrix} 2 \\ 1 \end{bmatrix}$$

$$\Rightarrow \begin{vmatrix} 3 & 4 \\ 1 & -5 \end{vmatrix} = 3(-5) - (4)(1) = -15 - 4 = -19 \neq 0$$

$$D_x = \begin{vmatrix} 4 & 4 \\ 1 & -5 \end{vmatrix} = 4(-5) - (4)(1) = -20 - 4 = -24$$

$$D_y = \begin{vmatrix} 3 & 2 \\ 1 & 1 \end{vmatrix} = (3)(1) - (2)(1) = 3 - 2 = 1$$

$$\rightarrow x = \frac{D_x}{D} = \frac{-24}{-19} = \frac{24}{19}$$

$$\rightarrow y = \frac{D_y}{D} = \frac{1}{-19} = -\frac{1}{19}$$