

$$2y + 4x = -1$$

$$m = -\frac{4}{2} = -2$$

(ب)
موازي

$$y - 2 = -2(x - 5)$$

$$\boxed{y = -2x + 12}$$

$$m = \frac{-2 - 2}{5 - 5} = \frac{-4}{0} = \text{غير معرف}$$

(1)
الف

$$y - (-2) = -2(x - 5)$$

$$y + 2 = -2x + 10$$

$$\boxed{y = -2x + 8}$$

(ج) $x + 3y = 1, m = -\frac{1}{3}, m' = 3$

$$y - 2 = 3(x - 5)$$

$$y = 3x - 15 + 2 = 3x - 13$$

$$3x + 4y = 3$$

$$d = \frac{|4 + 12 - 3|}{\sqrt{3^2 + 4^2}} = \frac{13}{5} = 2.6$$

(ب)

(2)
الف

$$d = \sqrt{4^2 + 3^2} = 5$$

$$d = \frac{|1 - 1 + 12|}{\sqrt{4^2 + 4^2}} = \frac{12}{\sqrt{32}} = \frac{3\sqrt{2}}{2}$$

(3) $4x + 4y - 12 = 0 \Leftrightarrow x + y - 3 = 0$

$$4x + 4y - 1 = 0 \Leftrightarrow x + y = \frac{1}{4}$$

الف $4x + 4y - 10 = 0$

$$\frac{|4x - 2y - 1|}{\sqrt{4^2 + 2^2}} = \frac{|4x + 3y - 3|}{\sqrt{4^2 + 3^2}}$$

$$4x - 2y - 1 = 4x + 3y - 3$$

$$x - 5y = -2 \quad m = \frac{1}{5}$$

$$4x - 2y - 1 = -4x + 3y + 3$$

$$8x - 5y = 4 \quad m = -\frac{8}{5}$$

موازي
متوازي

$$\tan \alpha = \left| \frac{m - m'}{1 + mm'} \right| = \frac{2 - (-2)}{1 - 4} = +1 \quad \tan \alpha = \frac{\sqrt{2}}{2} = +1 \quad \alpha = 45^\circ$$

$$\begin{aligned} y + 2x &= 3 & m &= -\frac{1}{2} \\ y - 2x &= 0 & m &= 2 \end{aligned}$$

$$M \begin{vmatrix} \frac{2+(-2)}{2} \\ \frac{2+(-2)}{2} \end{vmatrix} = -1$$

$$M \begin{vmatrix} -1 \\ +1 \end{vmatrix}$$

(ب)

(4) $d = \sqrt{4^2 + 1^2} = 5$ الف

$$\frac{1}{2} \begin{vmatrix} 2 & -2 & -10 \\ 1 & 2 & -12 \\ 1 & 1 & 1 \end{vmatrix} = \frac{1}{2} \times 48 = 24$$

$$4 + (-24) + (-10) - (-10) - (-2) - (-24) = 4 - 24 - 10 + 10 + 2 + 24 = 6$$

$$4 - 24 - 10 + 10 + 2 + 24 = 6$$

$$M \begin{vmatrix} \frac{2+(-2)}{2} + (-10) \\ \frac{1+2+(-12)}{2} \end{vmatrix} = -12$$

(الف) (5)

نویسنده: اریک یا ریگ سری B

(A)

$$y = \frac{2x+1}{\varepsilon x - 3}$$

الف) قرینه نسبت به محورهای

یصفی

$$y' - y = \frac{-2x-1}{\varepsilon x - 3}$$

ب) قرینه نسبت به محورهای

$$x' = -x$$

$$y = \frac{-2x+1}{-\varepsilon x - 3}$$

ج) قرینه نسبت به نیمه‌سایه، ناحیه دوم چهارم

$$-x = \frac{-2y+1}{-\varepsilon y - 3}$$

$$\varepsilon xy + 3x = -2y + 1$$

$$y(\varepsilon x + 3) = -2x + 1$$

$$y = \frac{-2x+1}{\varepsilon x + 3}$$

جایگاه اول و سوم

$$x = \frac{2y+1}{\varepsilon y - 3}$$

قرینه نسبت به ربع اول و سوم

$$\varepsilon xy - 3x = 2y + 1$$

$$y(\varepsilon x - 3) = 2x + 1$$

$$y = \frac{2x+1}{\varepsilon x - 3}$$

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

نویسنده: یازدهم سر

الف) $\frac{2}{-3}$

(9)

$$\begin{cases} y' = y + 3 & y = y' - 3 \\ x' = x - 2 & x = x' + 2 \end{cases}$$

$$y' - 3 = \frac{2(x' + 2) + 1}{(x' + 2) - 3} = \frac{2x' + 5}{x' - 1}$$

$$y' = \frac{2x' + 5}{x' - 1} + 3 = \frac{2x' + 5}{x' - 1} + \frac{3x' - 3}{x' - 1}$$

$$y' = \frac{5x' + 2}{x' - 1}$$

ب) $\frac{3}{2}$

$$\begin{cases} y' = y - 2 & y = y' + 2 \\ x' = x - 3 & x = x' + 3 \end{cases}$$

$$y' + 2 = \frac{2(x' + 3) + 1}{x' + 3 - 3} = \frac{2x' + 7}{x'}$$

$$y' = \frac{2x' + 7}{x'} - 2 = \frac{2x' + 7}{x'} - \frac{2x'}{x'}$$

$$= \frac{7}{x'}$$

$$\begin{cases} 2x + 5y = 7 \\ x - 3y = 1 \end{cases}$$

$$\begin{aligned} 2x + 5y &= 7 \\ x - 3y &= 1 \end{aligned} \quad \begin{aligned} 2x + 5y &= 7 \\ -x + 3y &= -1 \end{aligned} \quad \begin{aligned} 2x + 5y &= 7 \\ -x + 3y &= -1 \end{aligned}$$

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

$$\begin{aligned} 2x + 5y &= 7 \\ x - 3y &= 1 \end{aligned} \quad \begin{aligned} 2x + 5y &= 7 \\ x - 3y &= 1 \end{aligned} \quad \begin{aligned} 2x + 5y &= 7 \\ x - 3y &= 1 \end{aligned}$$

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نویس اولی و دومی