

18, 18

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

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

(ب)
موازي

$$m = \frac{-2-2}{0-2} = -\frac{4}{-2} = 2$$

(1)
الف

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

$$y = -2x + 6$$

$$y-(-2) = -2(x-0)$$

$$y+2 = -2x+0$$

$$y = -2x-2$$

18

$$\tan \frac{\pi}{4} = \sqrt{1}$$

$$y = \sqrt{1}x - 2\sqrt{1} + 2$$

(د)

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

(ج)

$$y-1 = 3(x-2)$$

$$y = 3x-12+3 = 3x-9$$

$$3x+4y=3$$

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

(ب)

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

(2)
الف

$$d = \frac{|1-1+12|}{\sqrt{1^2+4^2}} = \frac{12}{\sqrt{17}}$$

(1)

$$4x+4y-12=0 \Rightarrow x+y-3=0$$

(3)

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

$$4x+4y-10=0 \Rightarrow x+y-\frac{5}{2}=0$$

5
الف

$$\frac{|2x-2y-1|}{\sqrt{4+4}} = \frac{|2x+3y-3|}{\sqrt{4+9}}$$

18, 18

(4)

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

$$x+y = -2, m = -1$$

موازي
موازي

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

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

5
الف

$$\tan \alpha = \frac{|m-m'|}{1+mm'} = \frac{2-(-1)}{1-2} = -1$$

$$\tan \alpha = \frac{\frac{\sqrt{2}}{2}}{\frac{\sqrt{2}}{2}} = 1$$

$$\alpha = 45^\circ$$

$$y+2x=3, m=-2$$

$$y-2x=0, m=2$$

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

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

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

(ب)

$$d = \sqrt{4^2+1^2} = 5$$

الف 5

(5)

$$\frac{1}{2} \begin{vmatrix} 2 & -2 & -10 \\ 1 & 2 & -12 \\ 1 & 1 & 1 \end{vmatrix} = \frac{1}{2} \times 16 = 8$$

(ب)

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

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

الف (6)

18

$$9+(-24)+(-10)-(-10)-(-2)-(-24)$$

$$9-24-10+10+2+24 = 11$$

$$8 = \frac{1}{2} \begin{vmatrix} 2 & 1 & 1 \\ -2 & 2 & 1 \\ -10 & -12 & 1 \end{vmatrix} = 16$$

نویسنده ارسطو یا دیگر سرب B

(A)

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

ب) قرینه نسبت به محورها

$$x' = -x$$

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

الف) قرینه نسبت به محورها

یعنی

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

د

د) قرینه نسبت به نیمه‌سایه، ناحیه دوم چهارم

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

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

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

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

جایگاه اول و سوم

قرینه نسبت به ربع اول و سوم

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

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

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

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

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

نویسین (نسبت) یارده سرده

الف) $\frac{2}{-3}$ مبرانه

(9)

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

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

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

$$y' = \frac{5x' + 8}{x' - 1}$$

ب) $\frac{3}{2}$

(5)

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

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

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

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

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

$$\begin{aligned} 2x + 5y &= 7 \\ x - 3y &= 1 \end{aligned} \quad \begin{aligned} 2x + 5y &= 7 \\ -x + 3y &= -1 \end{aligned} \quad \begin{aligned} 3y &= 6 \\ y &= 2 \end{aligned}$$

$$\begin{aligned} 2x + 5y &= 7 \\ 2x + 10 &= 7 \end{aligned} \quad \begin{aligned} 2x &= -3 \\ x &= -\frac{3}{2} \end{aligned}$$

$$\begin{aligned} \begin{vmatrix} 2 & 5 \\ 1 & -3 \end{vmatrix} &= \begin{vmatrix} 2 & 5 \\ 1 & -3 \end{vmatrix} \\ \begin{vmatrix} 2 & 5 \\ 1 & -3 \end{vmatrix} &= \begin{vmatrix} 2 & 5 \\ 1 & -3 \end{vmatrix} \\ \begin{vmatrix} 2 & 5 \\ 1 & -3 \end{vmatrix} &= \begin{vmatrix} 2 & 5 \\ 1 & -3 \end{vmatrix} \end{aligned}$$

3

نویس اولی و دومی را در هم ضرب کردیم