

سوال ۱ - ۲ در مسی

۱) $\vec{r} = -\vec{e}_1 - 2\vec{e}_2 = 1 - 2 = 1$ (اند)

$$y = -x + 1$$

۲) $2x + y + 1 = 0 \Rightarrow \vec{r} = -\frac{1}{2}\vec{e}_1 - \vec{e}_2$

$$y = -2x - 1$$

۳) $x + 3y - 1 = 0 \Rightarrow \vec{r} = -\frac{1}{3}\vec{e}_1 - \vec{e}_2$

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

۴) $\frac{x}{5} = y \Rightarrow \vec{r} = 5\vec{e}_1 - \vec{e}_2$

$$y = 5x + 5 - 5x$$

۵) $A \begin{vmatrix} 2 \\ 1 \end{vmatrix}, B \begin{vmatrix} -1 \\ 1 \end{vmatrix} \Rightarrow d = \sqrt{a^2 + b^2}$

$\Rightarrow \sqrt{9 + 1} = 0$

$\Rightarrow 3x + 2y - 5 = 0 \Rightarrow d = \frac{|ax + by + c|}{\sqrt{a^2 + b^2}}$

$\Rightarrow \frac{|6 + 15 - 5|}{0} = 3$

معادله

محل

$$x^2 + y^2 = 1$$

$$x^2 + y^2 = 1$$

$$r = \sqrt{x^2 + y^2}$$

$$r = 1$$

$$x^2 + y^2 = 1$$

معادله را می توان به صورت زیر نوشت:

$$x^2 + y^2 = 1 \Rightarrow \sqrt{x^2 + y^2} = 1 \Rightarrow r = 1$$



مسئله ۱

مسئله ۲

$$x - y = 1$$

$$x + y = 0$$

$$\frac{|ax + by + c|}{\sqrt{a^2 + b^2}} = \frac{|a'x + b'y + c'|}{\sqrt{a'^2 + b'^2}}$$

$$\frac{|x - y - 1|}{\sqrt{1^2 + (-1)^2}} = \frac{|x + y|}{\sqrt{1^2 + 1^2}}$$

$$(1) \quad x - y - 1 = x + y \quad \text{or} \quad x - y - 1 = -(x + y)$$

$$(2) \quad x - y - 1 = -x - y + 1 \quad \Rightarrow \quad 2x - 2 = 0 \quad \Rightarrow \quad x = 1$$

$$y + x = 0 \quad \Rightarrow \quad y = -x$$

$$y - x = 0 \quad \Rightarrow \quad y = x$$

$$\tan \alpha = \left| \frac{m - m'}{1 + mm'} \right|$$

$$\Rightarrow \left| \frac{0}{-0} \right| = 1 \quad \Rightarrow \quad \alpha = 45^\circ$$

(۴) $\frac{1}{z} = \frac{1}{m} + \frac{1}{n}$ $\frac{1}{z} = \frac{1}{m} + \frac{1}{n}$

این $d = \sqrt{5x^2 + 13y^2} = 1$

ب $\frac{1}{m} = \frac{-5+2}{2} = -1$
 $\frac{1}{n} = 1$

(۵) این $\frac{1}{z} = \frac{1}{m} + \frac{1}{n}$ $\frac{1}{z} = \frac{1}{m} + \frac{1}{n}$ $\frac{1}{z} = \frac{1}{m} + \frac{1}{n}$

(۶) $y = \frac{2n+1}{2n-2}$ این $y = \frac{2n+1}{2n-2}$ $y = \frac{2n+1}{2n-2}$

قرینه نسبت به محور x ها: $y = \frac{-2n+1}{-2n-2}$

قرینه نسبت به محور y ها: $y = \frac{2n+1}{-2n-2}$ $y = \frac{2n+1}{-2n-2}$ $y = \frac{2n+1}{-2n-2}$

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

$$10 = 12.4$$

ع ۱۵ ص ۱۲۱

(9)

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

$$10 = 12.4 \Rightarrow y' + 3 = \frac{2x' + 1 + 2}{x' - 1} = y' = \frac{2x' + 3}{x' - 1}$$

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

$$10 = 12.4$$

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

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

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

(10)

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

از روش ضریب

$$\begin{cases} 3x + 2y - 2 = 0 \\ -4(x - 5y - 1) = 0 \Rightarrow -4x + 20y + 4 = 0 \end{cases}$$

$$\Rightarrow 19y = -1 \Rightarrow y = -\frac{1}{19} \quad x = \frac{12}{19}$$

از روش

$$x = -\frac{2+10}{-10-3} = \frac{12}{19}$$

$$y = \frac{3-2}{-3-10} = -\frac{1}{19}$$