

(الف)  $\frac{1}{r}$

$A \begin{vmatrix} 2 \\ 1 \end{vmatrix} B \begin{vmatrix} 0 \\ -1 \end{vmatrix} \rightarrow m = \frac{r+2}{2-0} = -2$

14/10/15

$y = -2x + H$

$r = -12 + H \rightarrow H = 12$

$y = -2x + 12$

(1)

(ب)  $\frac{1}{r}$

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

$A \begin{vmatrix} 2 \\ 1 \end{vmatrix}$

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

$2 = -4 + H \rightarrow H = 10$

$y = -\frac{1}{2}x + 10$

(ج)  $\frac{1}{2}$

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

$A = \begin{vmatrix} 2 \\ 1 \end{vmatrix}$

$y = \frac{1}{2}x + h$

$2 = 1 + h \rightarrow h = 1$

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

$\frac{1}{2} = \frac{1}{2}x - \sqrt{2}x + r$

(د)  $\frac{1}{r}$

$A \begin{vmatrix} 2 \\ 1 \end{vmatrix} B \begin{vmatrix} -1 \\ 1 \end{vmatrix}$

$L = \sqrt{(r+1)^2 + (2-1)^2} = 0$

$L = 0$

(5)

(هـ)  $\frac{1}{r}$

$A \begin{vmatrix} 2 \\ 1 \end{vmatrix}$

$2x + 2y - 2 = 0 \rightarrow L = \frac{2x^2 + 2x - 2}{\sqrt{2^2 + 2^2}} = \frac{10}{8} = \frac{5}{4}$

$L = \frac{5}{4}$

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

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

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

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

(و)  $\frac{1}{r}$

$2x + 2y - 2 = 0$

1/0

(ز)  $\frac{1}{r}$

$\frac{|k - k'|}{\sqrt{a^2 + b^2}} = \frac{|2 + 2|}{\sqrt{2^2 + 2^2}} = \frac{4}{4} = 1$

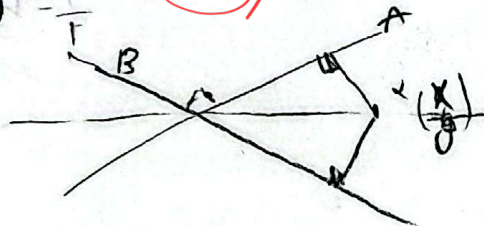
$L = \frac{2}{2} = 1$

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

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

1/0

$\frac{2x - 2y - 1}{0} = \pm (2x + 2y - 2)$



①  $x + y + 1 = 0$

②  $x + y - 1 = 0$

$a_1x + b_1x - 1 = a_2x + b_2x - 1$

$a - 0b = -1$

$0a - b = -1$

(3)  $y = rx - 0 \rightarrow \theta = B - \alpha$   
 $y = -\frac{c}{B}x + c$   
 $\tan \theta = \frac{\tan(B - \alpha)}{1 + \tan \alpha \tan B} = \frac{\frac{B}{c} - \frac{c}{B}}{1 + \frac{B}{c} \cdot \frac{c}{B}} = \frac{B^2 - c^2}{B^2 + c^2}$   
 $\tan \theta = \frac{10 - 2}{1 - 2} = \frac{-8}{-1} = 8$

$\theta = 80^\circ$

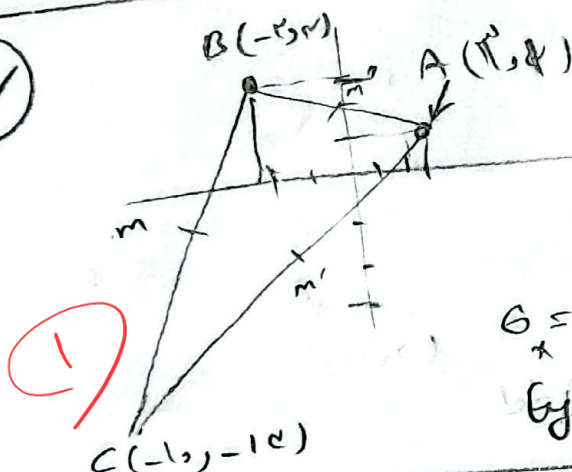
(4)  $A \begin{vmatrix} 10 \\ -2 \end{vmatrix} B \begin{vmatrix} -8 \\ 2 \end{vmatrix} L = \sqrt{(10+8)^2 + (-2-2)^2} = 10$

(الف)  $L = 10$

$m_x = \frac{10 - 8}{-2 - 2} = -\frac{2}{4} = -\frac{1}{2}$   
 $m_y = \frac{-8 - 2}{2 - 10} = \frac{-10}{-8} = \frac{5}{4}$

$m(-1, 1)$

(✓)



الف - محل برخورد میانه ها

$m(-2, -2)$   
 $\theta_x = \frac{-10 + 2 - 2}{-2 - 2} = \frac{-10}{-4} = \frac{5}{2}$   
 $\theta_y = \frac{-10 + 2 + 1}{-2 - 2} = \frac{-7}{-4} = \frac{7}{4}$

(الف)  $G(-2, -2)$

صف  $AB \rightarrow \frac{-2 - 2}{2 - 10} = \frac{-4}{-8} = \frac{1}{2}$

$y = -\frac{1}{2}x + h$   
 $x = -2, y = -2 \rightarrow h = -1$

$AB: y = -\frac{1}{2}x - 1$

$CH = \frac{|-\frac{1}{2}(10) - 1 + 1|}{\sqrt{1 + \frac{1}{4}}} = \frac{5}{\frac{\sqrt{5}}{2}} = \frac{10}{\sqrt{5}} = 2\sqrt{5}$

$AB = \sqrt{(-2-10)^2 + (2-4)^2} = \sqrt{100 + 4} = \sqrt{104}$

$\frac{10}{\sqrt{104}} = \frac{5}{\sqrt{26}}$

$S = 2\sqrt{5}$

$S = \frac{10}{\sqrt{104}} \times \sqrt{104} \times \frac{1}{2} = 5$



$$x \left[ \frac{b_1}{31} = x \right] \leftarrow 1 = \frac{b_1}{9} + x$$

$$\left[ \frac{b_1}{1} = y \right] \leftarrow 1 = y$$

$$\left[ \begin{array}{l} x = R_{11} + x_2 - \\ y = R_{11} + x_2 \end{array} \right] \left[ \begin{array}{l} 1 = R_{11} - x \\ y = R_{11} + x \end{array} \right] \leftarrow$$

$$\boxed{\frac{b_1}{1} = y}$$

$$\frac{b_1}{1} = \frac{2-1}{2-1} = \frac{1}{1} = y$$

$$\boxed{\frac{b_1}{31} = x}$$

$$\frac{b_1}{31} = \frac{2-1}{2-1} = \frac{1}{1} = x$$

$$\left. \begin{array}{l} 1 = R_{11} - x \\ y = R_{11} + x \end{array} \right\}$$

(1)

(A)  $y = \frac{2x+1}{2x-2}$

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

ب  $y = \frac{-2x-1}{2x-2}$

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

5

ج  $x = \frac{2y+1}{2y-2}$

$x = \frac{2y+1}{2y-2} \rightarrow 2yx - 2x = 2y + 1$   
 $y(2x-2) = 2y + 1$

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

د  $-x = \frac{-2y+1}{-2y-2}$

$-x = \frac{-2y+1}{-2y-2} \rightarrow 2xy + 2x = -2y + 1$   
 $y(2x+2) = 1 - 2x$

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

(9)

$x' = x - 2 \rightarrow x = x' + 2$   
 $y' = y - 2 \rightarrow y = y' + 2$   
 $y' = y' - 2$

$\frac{y'}{x'}$

الف

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

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

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

ب  $\frac{y'}{x'}$   
 $y' = y' - 2$   
 $x' = x - 2$

$x' = x - 2 \rightarrow x = x' + 2$   
 $y' = y - 2 \rightarrow y = y' + 2$

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

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

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