

۱) $m = \frac{1-2}{4-8} = -\frac{1}{4}$
 $y-2 = -\frac{1}{4}(x-4)$
 $y = -\frac{1}{4}x + 1$

۲) $m = \frac{1}{-3} \rightarrow m' = 3$
 $y-2 = 3(x-4)$
 $y = 3x - 10$

۳) $m = \text{dand}$
 $A = \sqrt{3}$
 $y = \sqrt{3}x - 4\sqrt{3} + 2$

۴) $\frac{a}{a'} = \frac{b}{b'} = \frac{c}{c'}$
 $m = -3$
 $y = -3x + 14$

۱) $\sqrt{\frac{(1-2)^2}{4} + \frac{(1-2)^2}{14}} = 5$

۲) $\frac{|3(4) + 4(2) - 10|}{\sqrt{3^2 + 4^2}} = \frac{10}{5} = 2$

۱) $4x + 4y = \frac{14+1}{1}$
 $4x + 4y = 15$
 $4y = -4x + 15$

۲) $\frac{14+1}{\sqrt{4^2 + 4^2}} = \frac{15}{\sqrt{32}}$

۳) $4x + 4y = 15$
 $4x + 8y = 14$
 $\frac{4x + 4y}{4x + 8y} = \frac{15}{14}$
 $\frac{1}{2} = \frac{15}{14}$

۱) $3x - 2y - 1 = 0$
 $2x + 3y - 4 = 0$
 $\frac{|3x - 2y - 1|}{\sqrt{9+4}} = \frac{|2x + 3y - 4|}{\sqrt{4+9}}$

۲) $3x - 2y - 1 = 2x + 3y - 4$
 $x - 5y = -3$
 $3x - 2y - 1 = -2x - 3y + 4$
 $5x + y = 5$

$y = 2x + 5 \rightarrow m = 2$
 $y = -2x + 3 \rightarrow m' = -2$

$\text{dand} = \frac{|2 - (-2)|}{1 + 2(-2)} = \frac{4}{-3} = -\frac{4}{3}$

$\alpha = \frac{12}{5}$

الف

$$|AO| = \sqrt{\left(\frac{-5-3}{4}\right)^2 + \left(\frac{4-2}{4}\right)^2} = 1.0$$

ب

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

$$(-1, 1)$$

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الف

مركز ثقل = مركز سائلا

$$x_G = \frac{-1.0 \cdot 3 + 3}{3} = (-3)$$

$$y_G = \frac{-1.0 \cdot 3 + 1}{3} = (3)$$

$$A \left| \begin{matrix} 1 & 0 \\ 0 & -1 \end{matrix} \right| \quad B \left| \begin{matrix} 1 & 0 \\ 0 & -1 \end{matrix} \right|$$

مساحة سطح المثلثات A و B

$$y = \frac{5}{2}x + 17$$

$$d = \frac{14 - 2 + 17}{\Delta} = (ارتفاع) = A$$

$$\frac{1}{2} \times \sqrt{\Delta} \times \frac{1}{\Delta} = \frac{\sqrt{\Delta}}{\Delta}$$

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

$$-x = \frac{-2y+1}{-4y-3} \rightarrow y = \frac{-2x+1}{4x+3}$$

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

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$$x = \frac{2y+1}{4y-3} \rightarrow 4xy - 3x = 2y+1 \rightarrow y = \frac{2x+1}{4x-3}$$

الف

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

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

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

ب

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

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

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

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$$3x + 2y = 2$$

$$x(-3) \quad x - 5y = 1$$

$$\begin{cases} 3x + 2y = 2 \\ -3x + 15y = -3 \end{cases}$$

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

ج

$$x = - \frac{\begin{vmatrix} 3 & 2 \\ -3 & 1 \end{vmatrix}}{\begin{vmatrix} 3 & 2 \\ -3 & 1 \end{vmatrix}} = \frac{3-6}{-3-2} = \frac{-3}{-5} = \frac{3}{5}$$

$$y = \frac{\begin{vmatrix} 3 & 2 \\ -3 & 1 \end{vmatrix}}{\begin{vmatrix} 3 & 2 \\ -3 & 1 \end{vmatrix}} = \frac{3-6}{-3-2} = \frac{-3}{-5} = \frac{3}{5}$$