

$$-y^2 + 8y - 6 = -y^2 + 14x + 6y - 38$$

$$2y - 14x + 32 = 0 \quad | :2$$

$$y - 7x + 16 = 0$$

$$o' \quad \boxed{7x - y - 16 = 0} \quad \text{Ecuación.}$$

$$(1) \quad \boxed{y = 7x - 16} \quad \text{1P.}$$

$$x^2 + y^2 - 8y + 6 = 0$$

$$x^2 + (7x - 16)^2 - 8(7x - 16) + 6 = 0$$

$$x^2 + 49x^2 - 224x + 256 - 56x + 128 + 6 = 0$$

$$5x^2 - 280x + 390 = 0$$

$$x = \frac{280 \pm \sqrt{280^2 - 4 \cdot 5 \cdot 390}}{2 \cdot 5}$$

$$\begin{aligned} \rightarrow x_1 &= 3 \\ \rightarrow x_2 &= \frac{13}{5} \end{aligned}$$

Reemplazo en (1)

$$y_1 = 5$$

$$y_2 = \frac{11}{5}$$

Puntos son:

$$(3, 5)$$

$$\left(\frac{13}{5}, \frac{11}{5}\right)$$

2P.

$$\text{distancia} = \sqrt{\left(3 - \frac{13}{5}\right)^2 + \left(5 - \frac{11}{5}\right)^2}$$

$$d = \sqrt{8} = 2\sqrt{2}$$

Ec. GENERAL es: $7x - y - 16 = 0$

Distancia: $2\sqrt{2} \text{ u.}$ 4P.

$$m_A = \frac{K-2}{h-3} \quad (1)$$

Ejercicio 2

$$Ec: 3x - 4y - 1 = 0 \rightarrow m = \frac{3}{4}$$

$$\text{Como es } \perp \quad m_A = -\frac{4}{3} \quad (2)$$

juntando 1 y 2

$$\frac{-4}{3} = \frac{K-2}{h-3} \quad | \cdot 3$$

$$-4 = \frac{3K-6}{h-3}$$

$$-4h + 12 = 3K - 6$$

$$(3) 4h + 3K - 18 = 0.$$

Ec. de la recta que une los centros.

$$5 = \left| \frac{3h - 4K - 1}{\sqrt{9 + 16}} \right|$$

$$\Rightarrow 5 = \left| \frac{3h - 4K - 1}{5} \right|$$

①

$$5 \cdot 5 = 3h - 4K - 1$$

$$(4) 3h - 4K - 26 = 0.$$

Reemplazando (3) en (4)

$$4h + 3K - 18 = 0 \quad | \cdot 3$$

$$3h - 4K - 26 = 0 \quad | \cdot 4$$

$$(2) 5 \cdot 5 = -3h + 4K + 1$$

$$(5) 3h - 4K + 24 = 0$$

$$12h + 9K - 54 = 0.$$

$$-12h + 16K + 104 = 0$$

$$25K + 50 = 0.$$

$$\boxed{K = -2}$$

Reemplazo $K = -2$ en (2)

$$h = \frac{-3 \cdot -2 + 18}{4}$$

$$\boxed{h = 6}$$

$$(6, -2)$$

Usando (3) y (5)

$$12h + 9K - 54 = 0.$$

$$-12h + 16K - 96 = 0$$

$$0 \quad 25K - 150 = 0$$

$$\boxed{K = 6}$$

$$\rightarrow h = \frac{-3 \cdot 6 + 18}{4}$$

$$\boxed{h = 0}$$

$$(0, 6)$$

PARTE 1

4P

PARTE 2

4P

Ejercicio
3

$$d(3,5) \text{ al centro} = d(-3,1) \text{ centro}$$

$$\sqrt{(7-0)^2 + (-3-x)^2} = \sqrt{(5-0)^2 + (3-x)^2} \quad / ()^2$$

$$49 + 9 + 6x + x^2 = 25 + 9 - 6x + x^2$$

$$12x = 25 - 49$$

$$x = \frac{-24}{12}$$

$$x = -2$$

$$h = -2$$

$$\text{centro} = (-2, 0)$$

5P.

radio

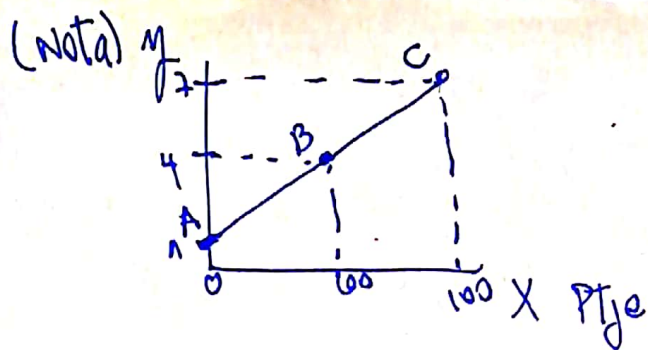
$$d = \sqrt{(7-0)^2 + (-3+2)^2}$$

2P.

$$r = \sqrt{50}$$

$$(x+2)^2 + (y-0)^2 = 50.$$

3P



A	(0, 1)
B	(60, 4)
C	(100, 7)

Ejercicio
4

1) Ec. 1 0 - 60 Pte

$$m = \frac{4-1}{60-0} = \frac{3}{60:3} = \frac{1}{20}$$

$$y = \frac{1}{20}x + 1 \rightarrow \text{corta a } y$$

3P

2) Ec. 2. 60 - 100.

$$y - 4 = \frac{7-4}{100-60} (x - 60)$$

$$y = \frac{3}{40}x - \frac{180}{40} + \frac{160}{40}$$

$$y = \frac{3}{40}x - \frac{20}{40}$$

$$y = \frac{3}{40}x - \frac{1}{2}$$

3P

x = 30 y x = 55

Ec. 1 $y = \frac{1}{20} \cdot 30 + 1 \rightarrow y = 2,5$ 2P

$y = \frac{1}{20} \cdot 55 + 1 \rightarrow y = 3,75$ 2P.

$$l = \frac{2x}{3} - \frac{2}{3}$$

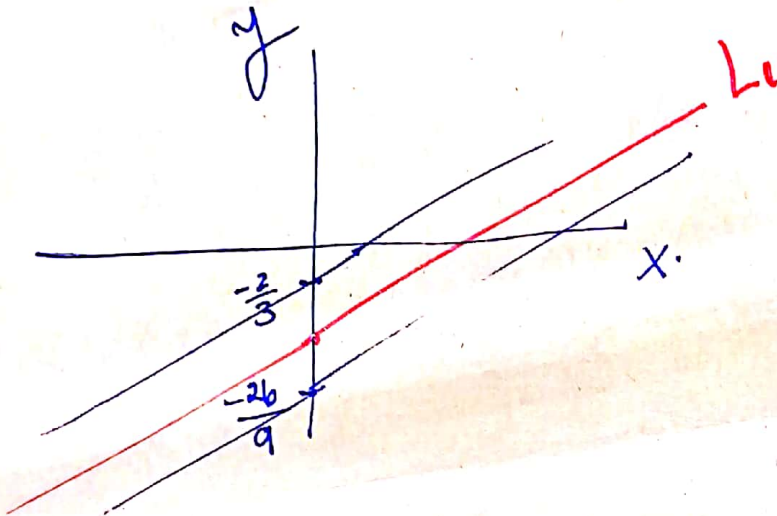
$$m_1 = \frac{2}{3}$$

$$n_1 = -\frac{2}{3}$$

$$y = \frac{6}{9}x - \frac{26}{9}$$

$$m_2 = \frac{2}{3}$$

$$n_2 = -\frac{26}{9}$$



Ejercicio (5)

$$L_1 = m_1 = m_2 = m_{L_1} = \frac{2}{3} \quad 2,5P$$

$$n_{L_1} = \frac{n_1 + n_2}{2}$$

$$n = \frac{-\frac{2}{3} + -\frac{26}{9}}{2} \rightarrow n = \frac{-6 - 26}{9} \cdot \frac{1}{2}$$

$$n = \frac{-32}{18} \rightarrow \boxed{n = -\frac{16}{9}} \quad 2,5P$$

Ecuación

$$y = \frac{2}{3}x - \frac{16}{9} \quad | \cdot 9$$

$$9y = 6x - 16$$

$$\boxed{6x - 9y - 16 = 0} \quad 5P$$

$$2x + 3y - 10 = 0.$$

$$r = +\sqrt{2^2 + 3^2} \Rightarrow r = \sqrt{13}$$

3P.

exercício
(6)

$$\frac{2x}{\sqrt{13}} + \frac{3y}{\sqrt{13}} - \frac{10}{\sqrt{13}} = 0.$$

$$\cos W = \frac{2}{\sqrt{13}}$$

$$\sin W = \frac{3}{\sqrt{13}}$$

$$W = \text{Arccos} \frac{2}{\sqrt{13}}$$

$$W = 56,30$$

$$W = \text{Arco sen} \frac{3}{\sqrt{13}}$$

$$W = 56,3 \quad W = 56^{\circ}18'$$

4P.

$$\cos 56,30^{\circ} x + \sin 56,30^{\circ} y - \frac{10\sqrt{13}}{10} = 0.$$

3P