

n. 183

$$\begin{cases} y = \frac{x-3}{2} \\ x + 2y = 1 \end{cases} \quad C$$

n. 219

$$(b-1)x + \underline{(4-b)}y - b = 0 \quad m = \frac{b-1}{b-4}$$

a)  $3y - 3x + 4 = 0$

$$m' = \frac{3}{3} = 1$$

$$\frac{b-1}{b-4} = -1 \Rightarrow b-1 = -b+4$$
$$2b = 5; \quad b = \frac{5}{2}$$

b)  $O(0,0)$   $A(-2,4)$

$$m = \frac{\Delta y}{\Delta x} = \frac{4}{-2} = -2$$

~~$$\frac{b-1}{b-4} = -2 \Rightarrow b-1 = -2b+8$$~~
$$3b = 9 \Rightarrow b = 3$$

$$c) y = x \quad m = 1$$

$$\frac{b-1}{b-4} = 1 \Rightarrow \cancel{b-1} = \cancel{b-4} \quad \text{unmp.}$$

$$\nexists b \in \mathbb{R}$$

$$d) y + 2\sqrt{3} = 0 \quad y = -2\sqrt{3}$$

$$4 - b = 0 \Rightarrow b = 4$$

$$e) 3\sqrt{2}y + 5\sqrt{2}x + 8\sqrt{3} = 0$$

$$m' = -\frac{5\sqrt{2}}{3\sqrt{2}} = -\frac{5}{3}$$

$$\frac{b-1}{b-4} = -\frac{5}{3}$$

$$f) 5 - 3x = 0 \Rightarrow x = \frac{5}{3}$$

$$b - 1 = 0 \Rightarrow b = 1$$

$$g) \quad x = \frac{1}{4}y + 2 \Rightarrow \frac{1}{4}y = x - 2$$

$$y = 4x - 8$$

$$\frac{b-1}{b-4} = 4$$

$$\frac{b-1}{b-4} = -\frac{1}{4}$$

$$\frac{b-1}{b-4} \cdot 4 = -1$$

Asse di un segmento

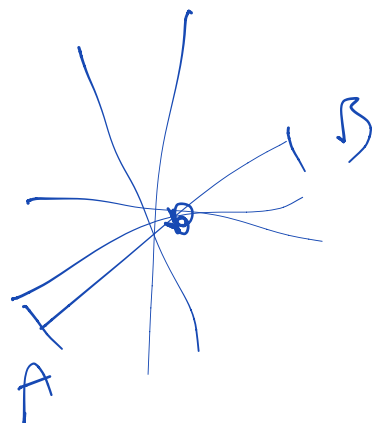
$$A(1, 2)$$

$$B(-2, 3)$$

1° metodo:  $\kappa \left( -\frac{1}{2} \mid \frac{5}{2} \right)$

$$m_{AB} = \frac{3-2}{-2-1} = \frac{1}{-3} = -\frac{1}{3}$$

$$y - y_{\pi} = m_{\perp} (x - x_{\pi})$$



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

$$y - \frac{5}{2} = 3x + \frac{3}{2} ; 2y - 5 = 6x + 3$$

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

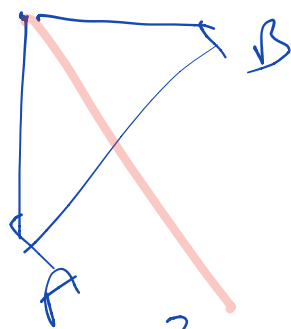
$$3x - y + 4 = 0$$

2º método

$$A(1, 2) \quad B(2, 3)$$

$$\frac{\quad}{2} \quad \frac{\quad}{2}$$
$$PA = PB$$

$P(x, y)$

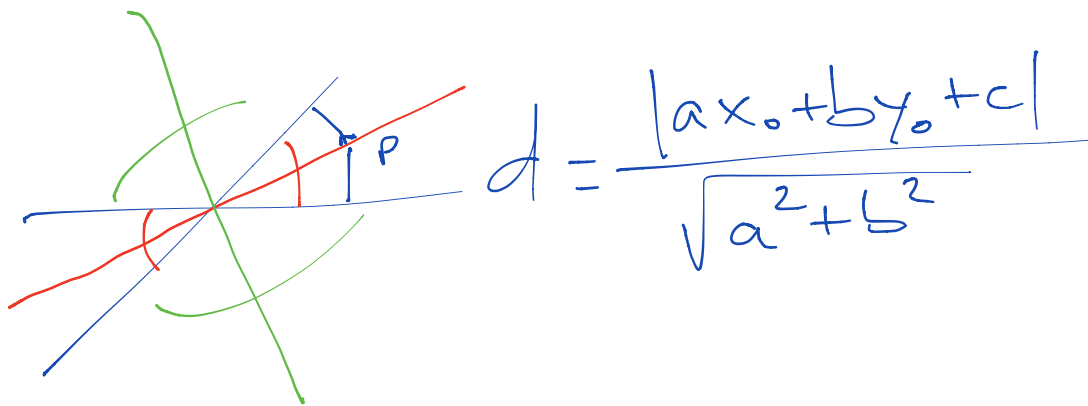


$$(x-1)^2 + (y-2)^2 = (x+2)^2 + (y-3)^2$$

$$\cancel{x^2} - 2x + 1 + \cancel{y^2} - 4y + 4 = \cancel{x^2} + 4x + 4 + \cancel{y^2} - 6y + 9$$

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

$$3x - y + 4 = 0$$



$$r: 2x - y + 1 = 0 \quad P(x, y)$$

$$s: 3x + 4y - 2 = 0$$

$$\frac{|2x - y + 1|}{\sqrt{4 + 1}} = \frac{|3x + 4y - 2|}{\sqrt{9 + 16}}$$

$$1) \frac{2x - y + 1}{\sqrt{5}} = \frac{3x + 4y - 2}{5}$$

$$2) \frac{2x - y + 1}{\sqrt{5}} = - \frac{3x + 4y - 2}{5}$$