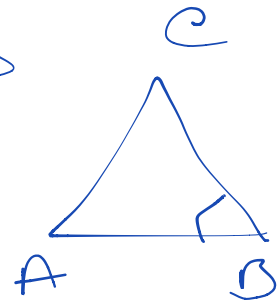


$$\text{n. 87 } A(3;1) \quad B(6;7) \quad C(-k+2; -k)$$

$\triangle ABC$  isoscele su  $AB$

$$\overline{CA} = \overline{CB}$$



$$\overline{CA} = \sqrt{(-k+2-3)^2 + (-k-1)^2}$$

$$\overline{CB} = \sqrt{(-k+2-6)^2 + (-k-7)^2}$$

$$(-k-1)^2 + (-k-1)^2 = (-k-4)^2 + (-k-7)^2$$

$$M_{AB} \left( \frac{9}{2}; 4 \right)$$

n.182  $8x - y + 6 = 0$

$$X_P = 0$$

$$X_R = -Y_R$$

$$Y_Q = -6$$

1)  $-y + 6 = 0 \Rightarrow y = 6$  P(0;6)

2)  $8x + 6 + 6 = 0 \Rightarrow x = -\frac{3}{2}$  Q(-\frac{3}{2}; -6)

3)  $8x + x + 6 = 0 \Rightarrow x = -\frac{2}{3}$  R(-\frac{2}{3}; \frac{2}{3})

$$y = mx + q$$

$$q = 0$$

retta per 0

$$m = 0$$

parallela x

$$y = 0$$

$$ax + by + c = 0$$

$$a = 0$$

$$by + c = 0$$

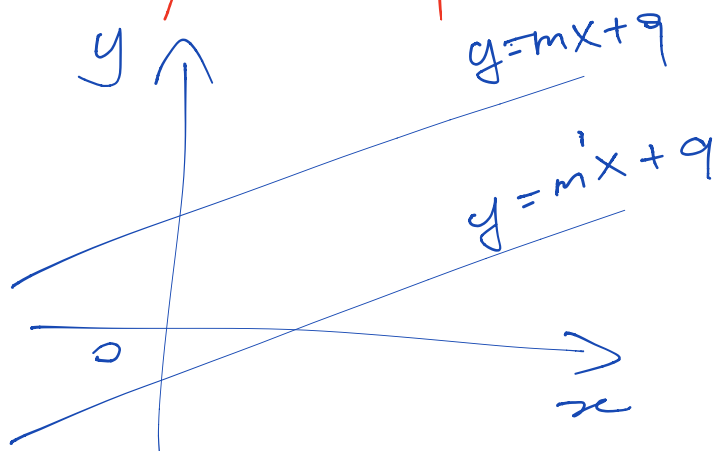
$$y = -c/b$$

$$b = 0$$

$$ax + c = 0$$

$$x = -\frac{c}{a}$$

## Reten parallele



$$y = mx + q$$
$$y = m'x + q'$$

$$\begin{cases} y = mx + q \\ y = m'x + q' \end{cases}$$

$$mx + q = m'x + q'$$

$$mx - m'x = q' - q$$

$$(m - m')x = q' - q$$

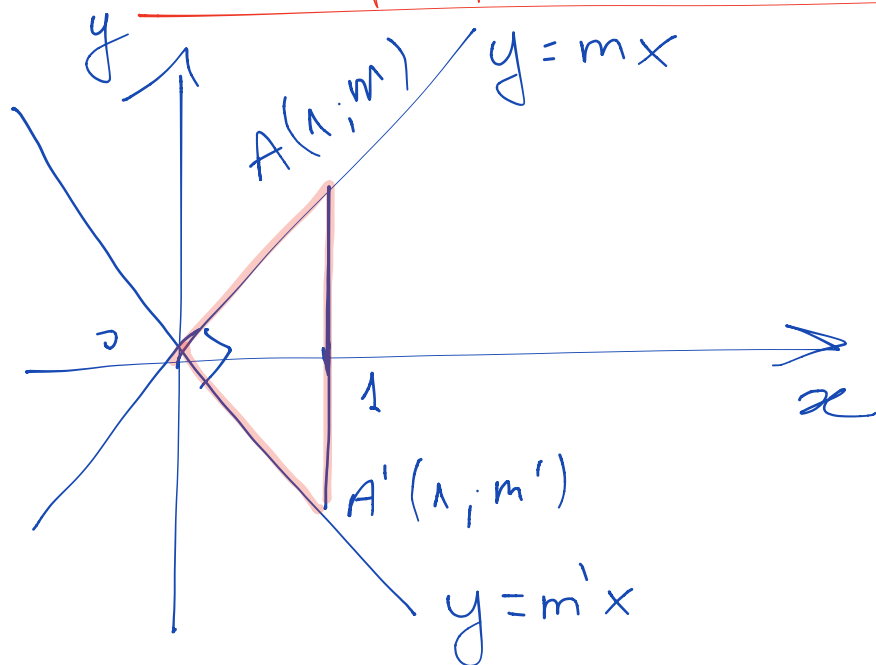
$$\textcircled{a} x = b$$

$$m - m' = 0 \Rightarrow m = m'$$

$$y = 3x + 1$$

$$y = 3x - 5$$

## Rete perpendicolare:



$$\overline{OA}^2 + \overline{OA'}^2 = \overline{AA'}^2$$

$$1 + m^2 + 1 + m'^2 = (m - m')^2$$

$$2 + \cancel{m^2} + \cancel{m'^2} = \cancel{m^2} + \cancel{m'^2} - 2mm'$$

$$2 = -2mm'$$

$$mm' = -1$$

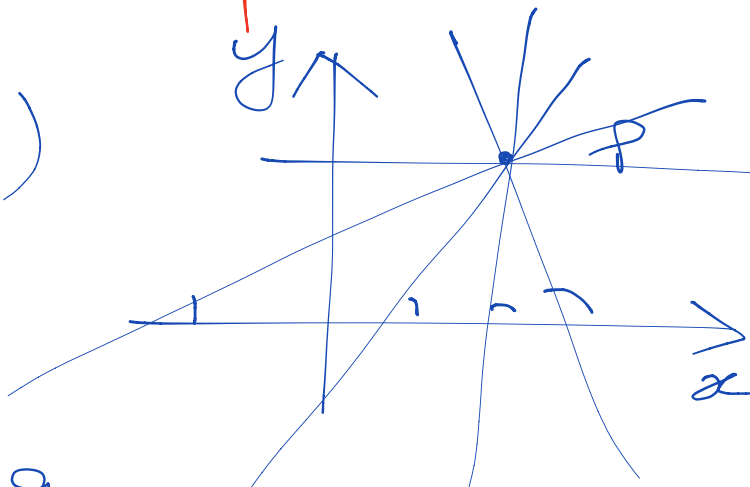
$$m' = -\frac{1}{m}$$

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

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

Rette per un punto

$$P(x_0; y_0)$$



$$\begin{cases} y = mx + q \\ y_0 = mx_0 + q \end{cases}$$

$$y = 3x - 1$$

$$P(2; 5)$$

$$y - y_0 = mx + q - mx_0 - q$$

$$y - y_0 = m(x - x_0)$$

Esercizio :  $P(1; 2)$   $y = 2x + 3$

$$y - 2 = m(x - 1)$$

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

$$y = 2x$$

$$y - 2 = m(x - 1) \quad m' = -\frac{1}{2}$$

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

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

Coeff. ang. retta per 2 punti

$$A(x_1; y_1) \quad B(x_2; y_2)$$

$$\underline{y - y_1 = m(x - x_1)}$$

$$y_2 - y_1 = m(x_2 - x_1)$$

$$m = \frac{\Delta y}{\Delta x} = \frac{y_2 - y_1}{x_2 - x_1}$$

$$y - y_1 = m(x - x_1)$$

$$y - y_1 = \frac{y_2 - y_1}{x_2 - x_1} (x - x_1)$$

$$\frac{y - y_1}{y_2 - y_1} = \frac{x - x_1}{x_2 - x_1}$$

$$A(2, 3) \quad B(-1, 5)$$

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

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

$$\frac{a}{b} \neq \frac{c}{d}$$

$$-3y + 9 = 2x - 4$$

$$2x + 3y - 13 = 0$$