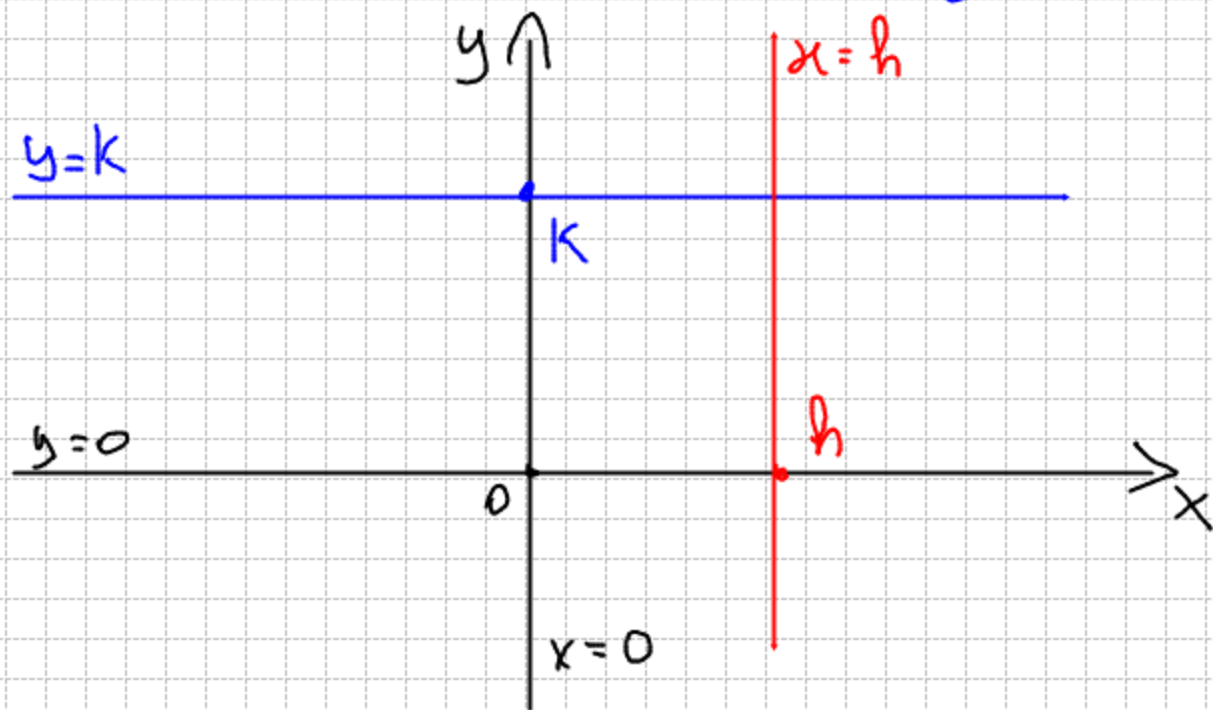


LE RETTE

1/3

- EQUAZIONI DEGLI ASSI E DELLE RETTE // AGLI ASSI



equazione asse x : $y=0$

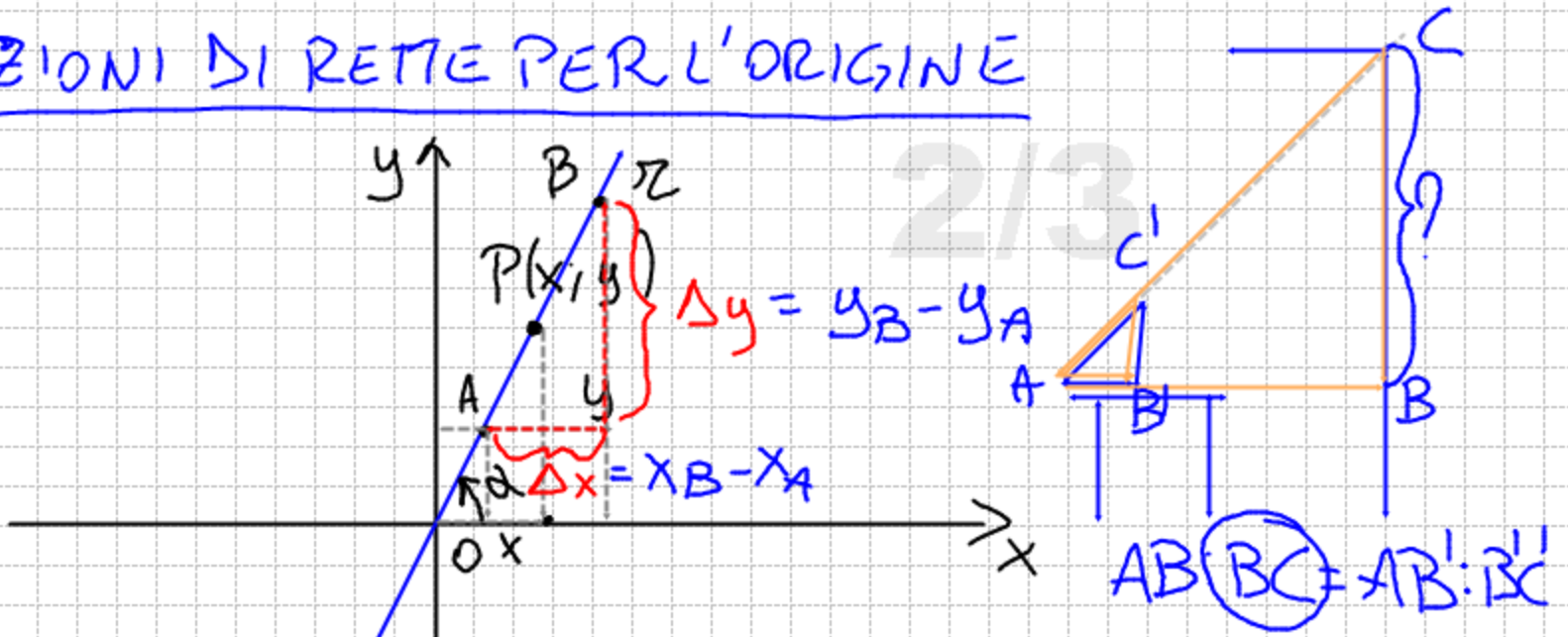
equazione asse y : $x=0$

equazione rette // asse x : $y=k$ $k \in \mathbb{R}$

equazioni rette // asse y : $x=h$ $h \in \mathbb{R}$

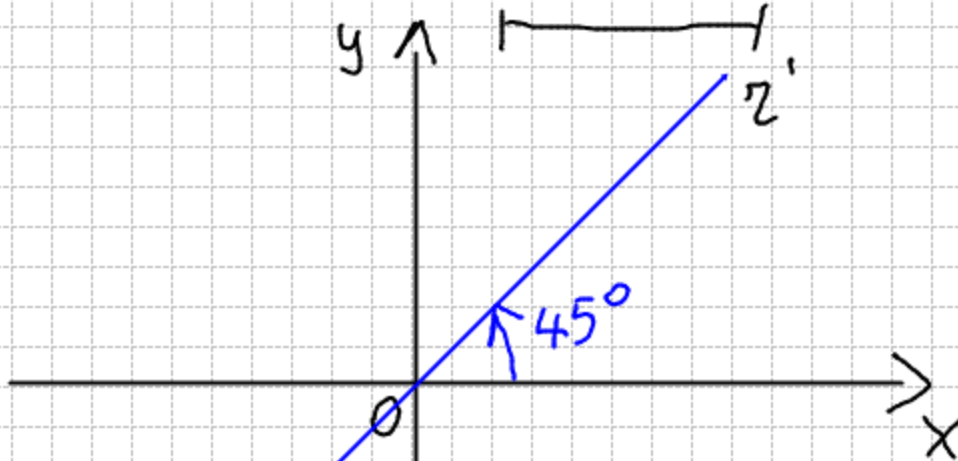
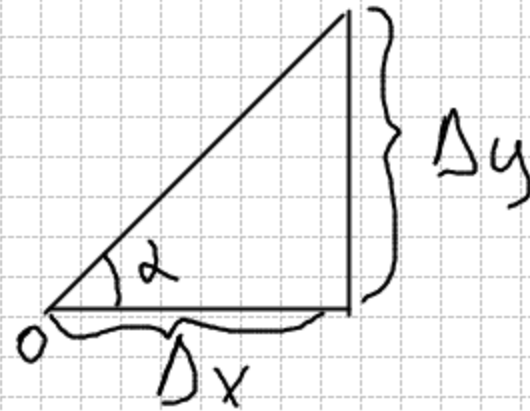
EQUAZIONI DI RETTE PER L'ORIGINE

213



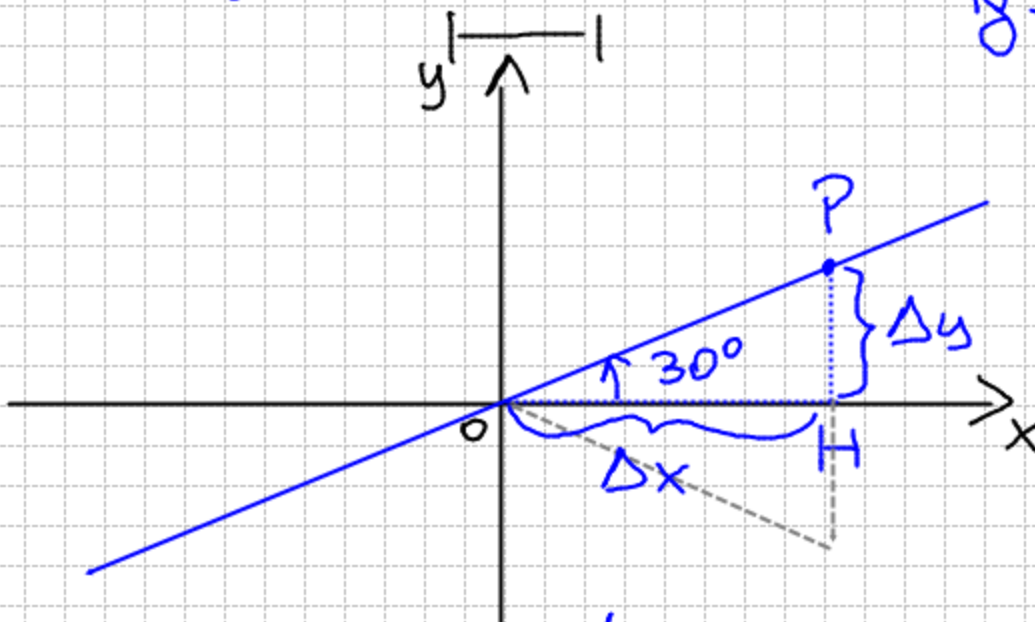
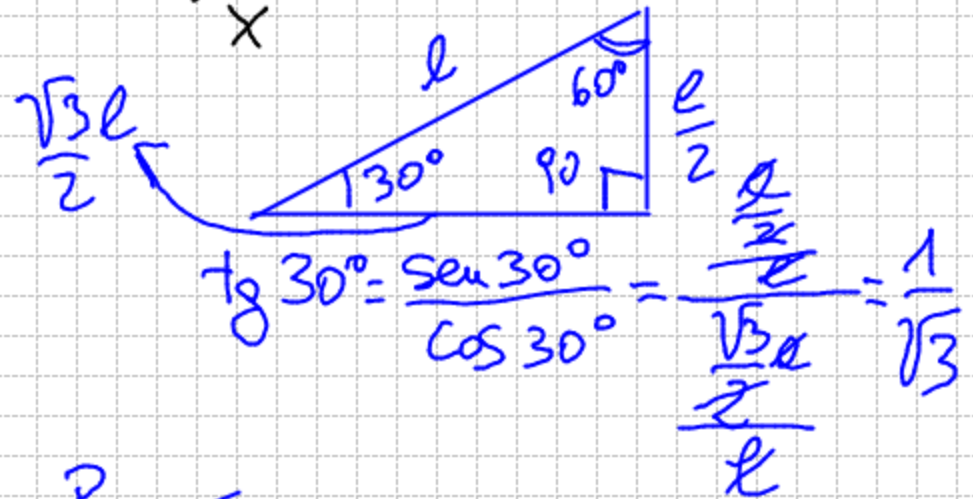
$r: y = m x$

$m = \operatorname{tg} \alpha = \frac{\Delta y}{\Delta x}$



$\operatorname{tg} 45^\circ = 1 = m$

$y = m x \Leftrightarrow y = x$



$\overline{PH} = \frac{1}{2} \overline{OP}$

$\overline{OP} = 1$

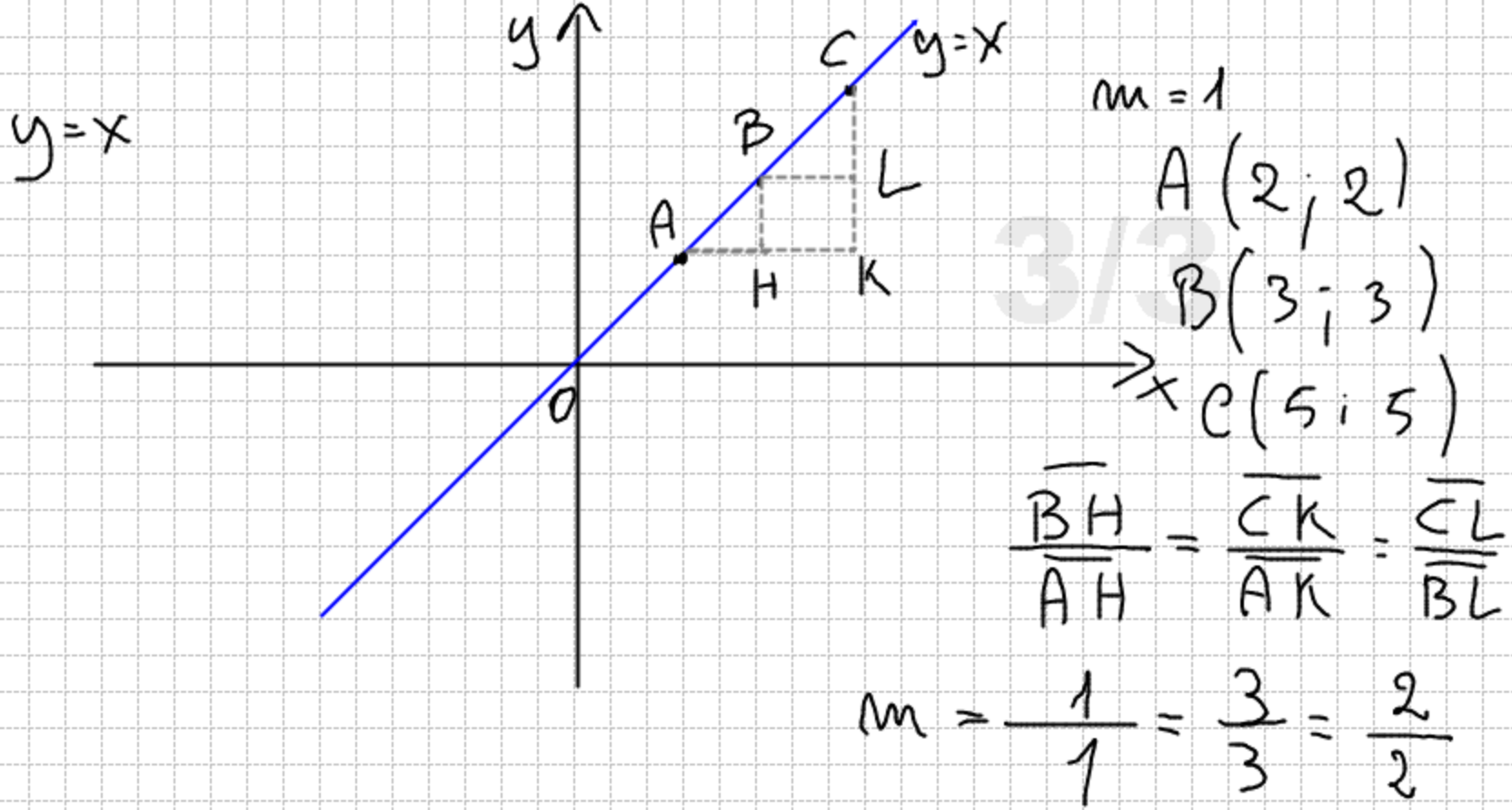
$\overline{PH} = \frac{1}{2}$

$y = m' x \quad m' = \frac{\Delta y}{\Delta x} = \frac{\frac{1}{2}}{\frac{\sqrt{3}}{2}} = \frac{1 \cdot 2}{2 \sqrt{3}} = \frac{\sqrt{3}}{3}$

$\overline{OH} = \sqrt{1 - \frac{1}{4}} = \frac{\sqrt{3}}{2}$

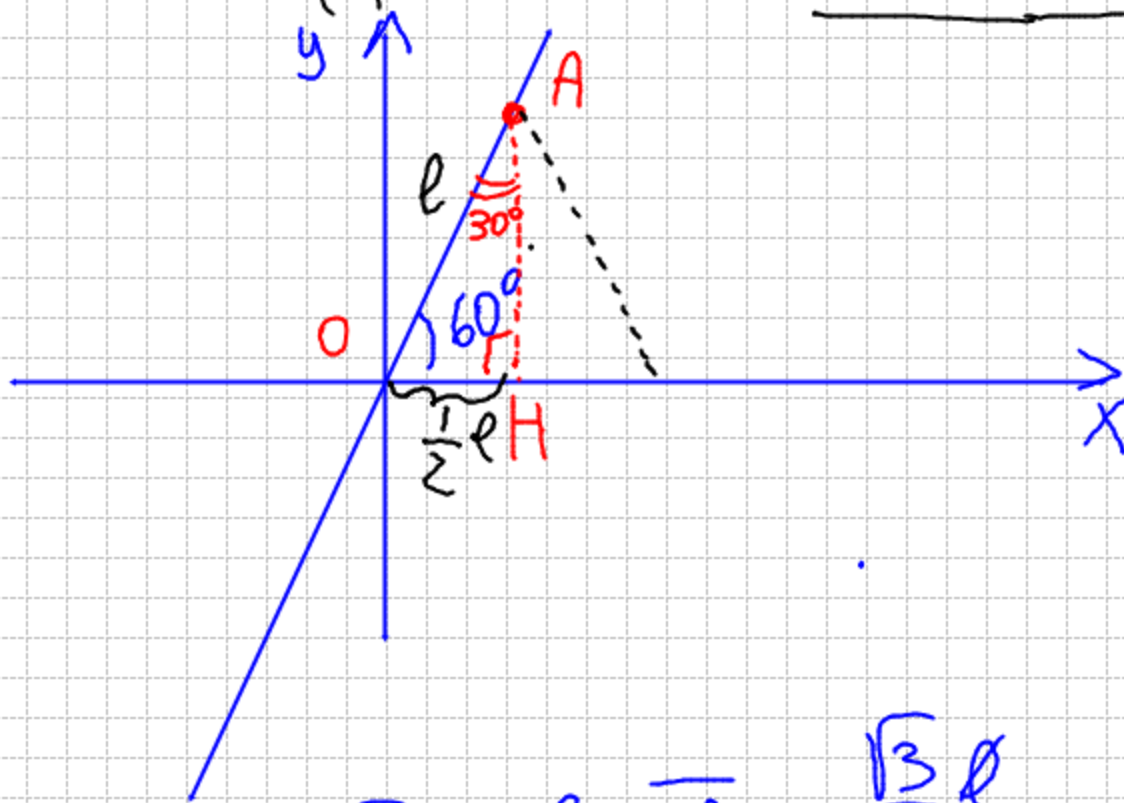
$m' = \operatorname{tg} 30^\circ = \frac{\sqrt{3}}{3}$

$y = \frac{\sqrt{3}}{3} x$



ESERCIZIO

Scrivere equazione della retta che passa per $O(0;0)$ e forma con l'asse delle ascisse un angolo di 60° (possibilmente sarebbe opportuno utilizzare la calcolatrice)



$$y = mx$$

$$m = \text{Tg } 60^\circ = \frac{AH}{OH}$$

$$OH = \frac{1}{2} OA$$

$$OA^2 = OH^2 + HA^2$$

$$+ HA^2 = OA^2 - OH^2$$

$$HA^2 = e^2 - \frac{1}{4} e^2 = \frac{3}{4} e^2$$

$$HA = \sqrt{\frac{3}{4} e^2} = \frac{\sqrt{3}}{2} e$$

$$m = \text{Tg } 60^\circ = \frac{HA}{OH} = \frac{\frac{\sqrt{3}}{2} e}{\frac{1}{2} e} = \frac{\sqrt{3}}{1} = \sqrt{3}$$

$$y = \sqrt{3} x$$

$\beta = 30^\circ$ $\gamma = 45^\circ$ $\sigma = 135^\circ$ $\eta = 120^\circ$