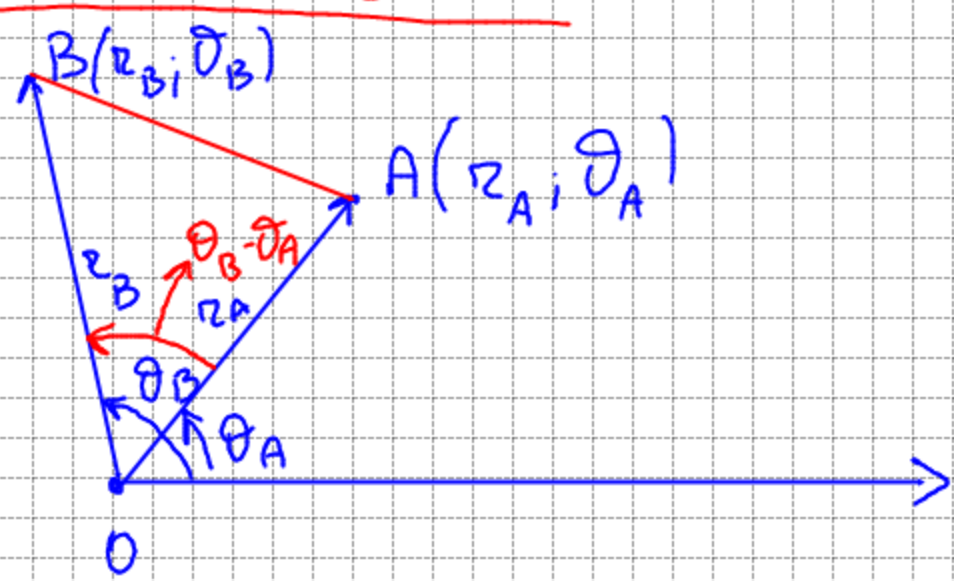


$$\left. \begin{aligned}
 y &= ax^2 + bx + c \\
 \frac{x^2}{a^2} + \frac{y^2}{b^2} &= 1 \\
 x^2 + y^2 &= r^2 \\
 \frac{x^2}{a^2} - \frac{y^2}{b^2} &= \pm 1
 \end{aligned} \right\}$$

$$ax^2 + by^2 + cxy + dx + ey + f = 0$$

DISTANZA TRA DUE PUNTI

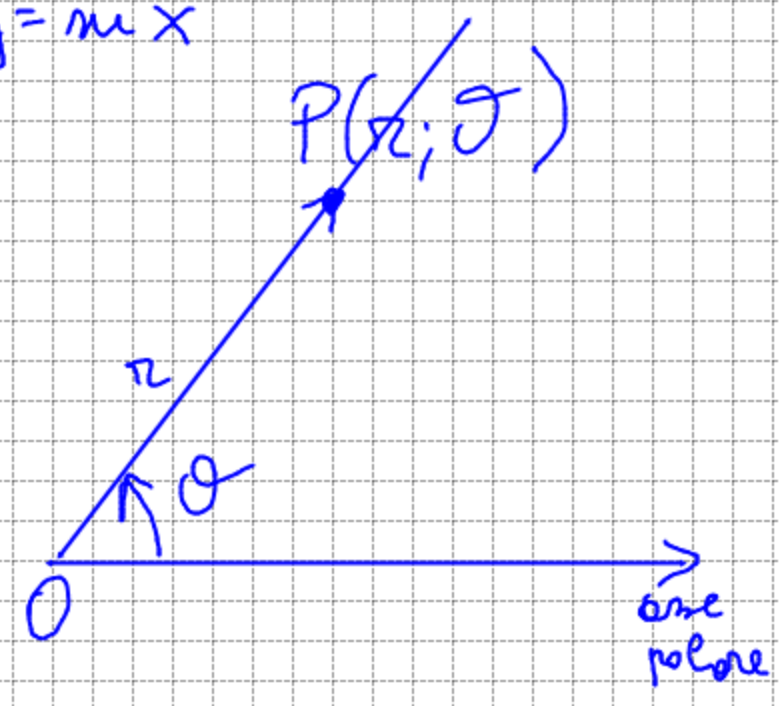
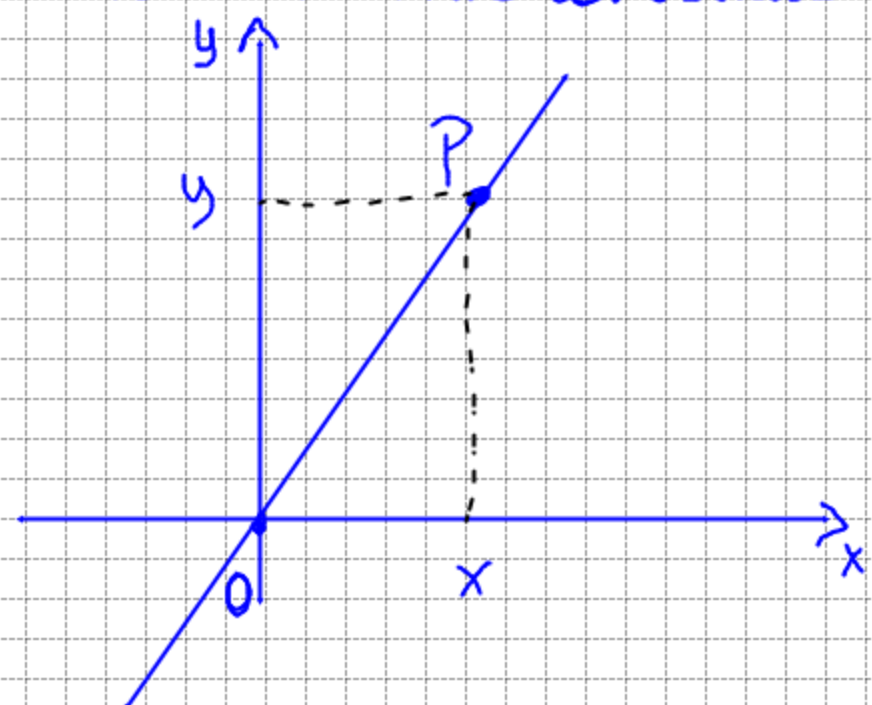


$$\overline{AB}^2 = \overline{OA}^2 + \overline{OB}^2 - 2 \overline{OA} \cdot \overline{OB} \cos(\theta_B - \theta_A)$$

$$\overline{AB} = \sqrt{r_A^2 + r_B^2 - 2r_A r_B \cos(\theta_B - \theta_A)}$$

EQ. RETTA PASSANTE PER O

Nelle coordinate cartesiane: $y = mx$



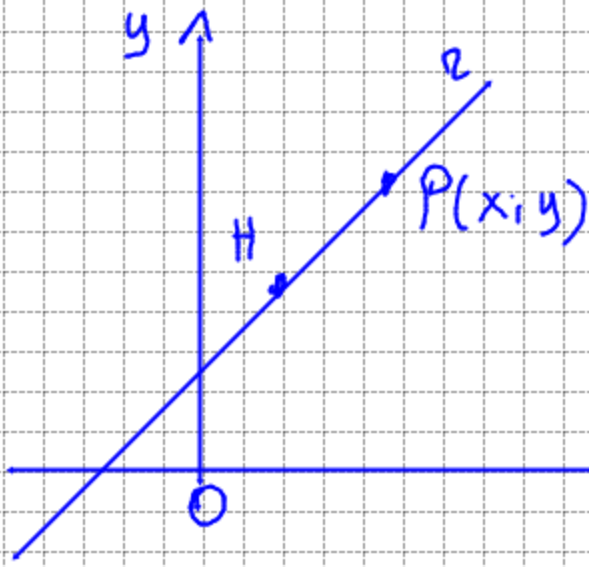
$$\begin{aligned}
 x &= r \cos \theta \\
 y &= r \sin \theta \quad \Rightarrow \quad r \sin \theta = m r \cos \theta
 \end{aligned}$$

$$\sin \theta = m \cos \theta$$

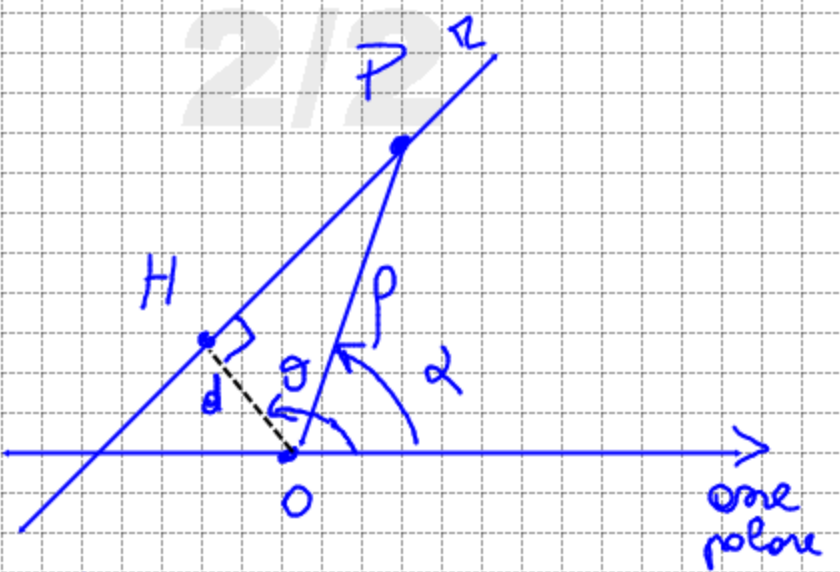
$$m = \tan \theta$$

$$\theta = \frac{\pi}{2} + k\pi \quad k \in \mathbb{Z}$$

EQ. RETTA GENERALE



$$\frac{y - y_H}{y_P - y_H} = \frac{x - x_H}{x_P - x_H}$$



d : distanza della retta r dal polo O .

$$\overline{OH} = \overline{OP} \cos(\theta - \alpha)$$

$$d = p \cos(\theta - \alpha) \quad \text{EQ. RETTA}$$

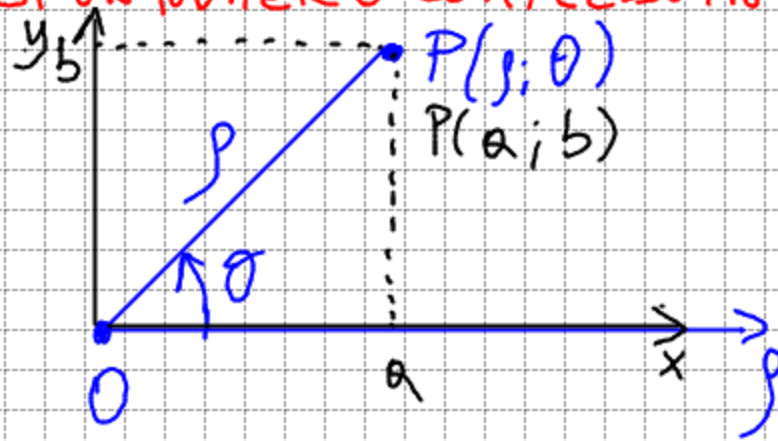
RAPPRESENTAZIONE DI UN NUMERO COMPLESSO IN FORMA TRIGONOMETRICA.

$$z = a + ib$$

$$p = \sqrt{a^2 + b^2}$$

$$\cos \vartheta = \frac{a}{p} = \frac{a}{\sqrt{a^2 + b^2}}$$

$$\sin \vartheta = \frac{b}{p} = \frac{b}{\sqrt{a^2 + b^2}}$$



$$z = p \cos \vartheta + i p \sin \vartheta$$

$$z = p (\cos \vartheta + i \sin \vartheta)$$