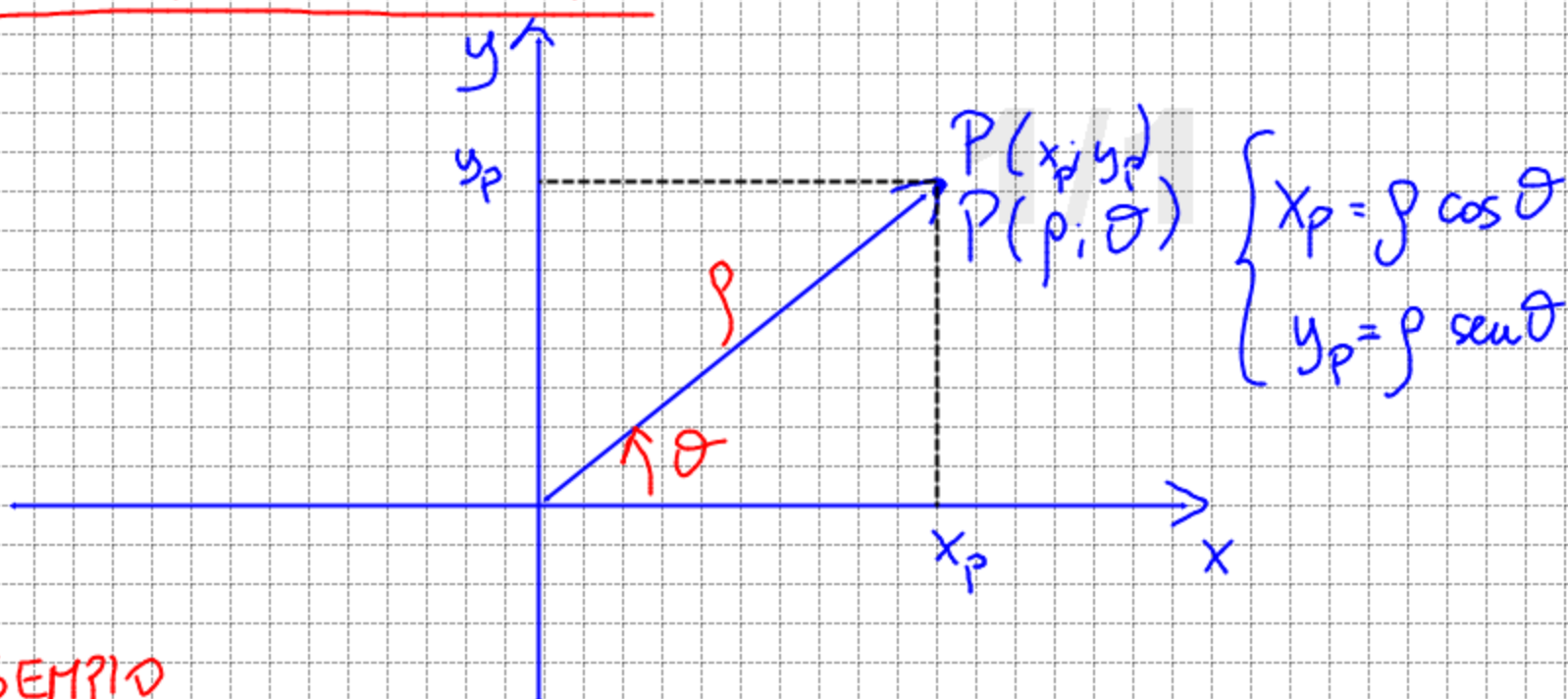


COORDINATE POLARI NEL PIANO



ESEMPIO

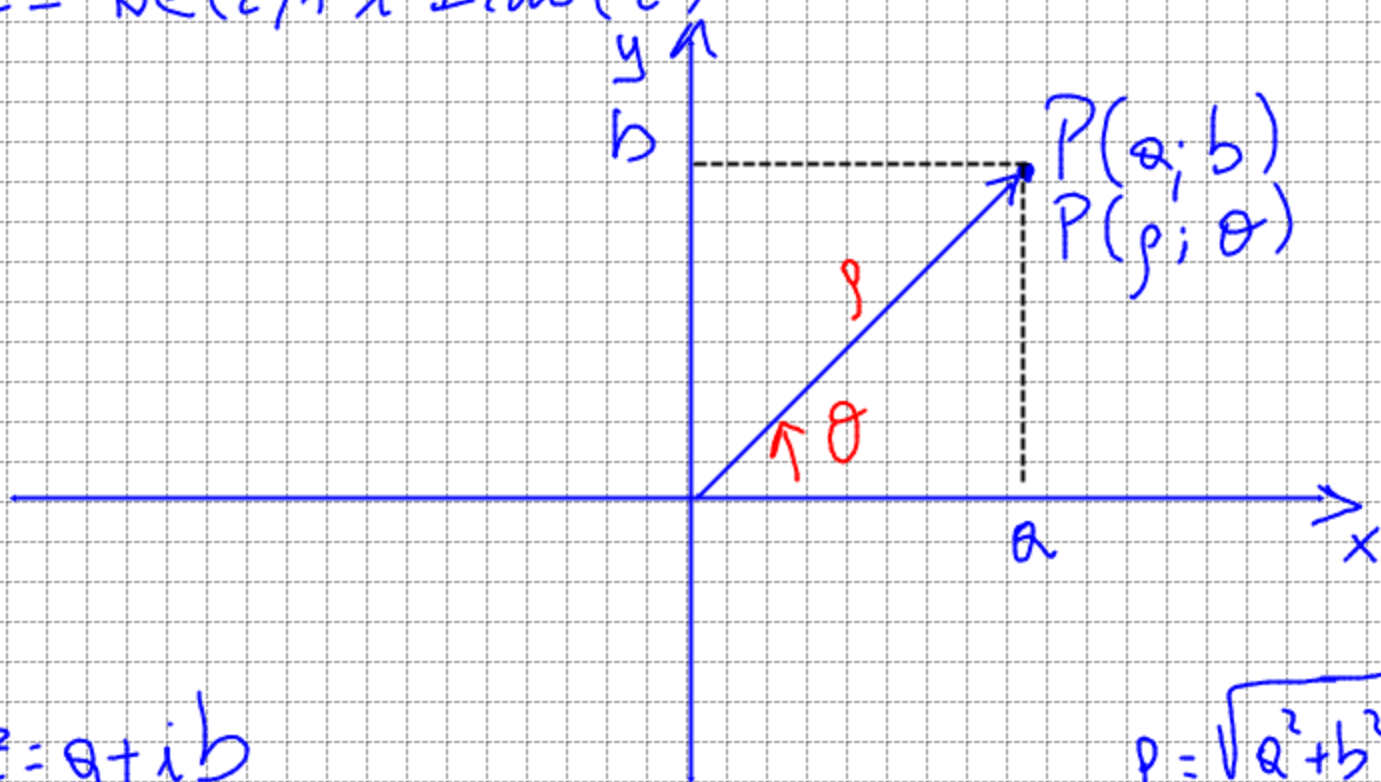
Quali sono le coordinate polari di $A(1; \sqrt{3})$?

$$\begin{cases} 1 = \rho \cos \theta \\ \sqrt{3} = \rho \sin \theta \end{cases} \quad \frac{\rho \sin \theta}{\rho \cos \theta} = \frac{\sqrt{3}}{1} \Rightarrow \tan \theta = \sqrt{3}$$

$$\theta = \frac{\pi}{3} \quad \rho^2 \cos^2 \theta + \rho^2 \sin^2 \theta = 4 \quad \rho^2 = 4 \quad \rho = 2$$

$A\left(2; \frac{\pi}{3}\right)$ coordinate polari.

$$z = \operatorname{Re}(z) + i \operatorname{Im}(z)$$



$$z = a + ib$$

$$\begin{aligned} \rho &= \sqrt{a^2 + b^2} \\ \sin \theta &= \frac{b}{\sqrt{a^2 + b^2}} \\ \cos \theta &= \frac{a}{\sqrt{a^2 + b^2}} \end{aligned}$$