

Magnitude

The magnitude of a complex number $z = a + bi$ is defined as $|z| = \sqrt{a^2 + b^2}$.

Argument

For any complex number, like $z = 3 + 4i$, there is $\arg(z)$ that is the angle (in radians) between the x axis and the complex number in the Argand diagram.

So for z :

$$\tan \theta = \frac{4}{3}$$

$$\theta = \arctan\left(\frac{4}{3}\right)$$

$$\approx 0.93$$