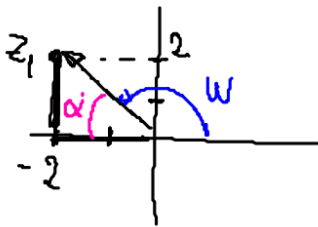


Pase de una a otra forma

Ejemplo 1

$$z_1 = -2 + 2i$$



1° cálculo del módulo, 2° cálculo el argumento
(teniendo en cuenta el cuadrante)

$$|z_1| = \sqrt{2^2 + 2^2} = \sqrt{8} = \sqrt{2^3} = 2\sqrt{2}$$

$$\boxed{|z_1| = 2\sqrt{2}}$$

$$\operatorname{tg} \alpha = \frac{2}{2} = 1$$

$$\alpha = \operatorname{arctg} 1 = 45^\circ$$

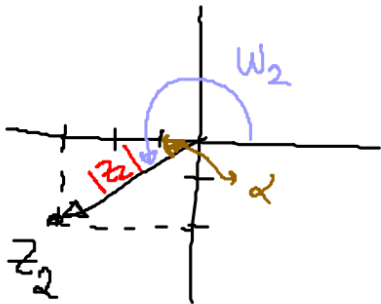
$$w = 180^\circ - 45^\circ = 135^\circ$$

$$z_1 = |z_1| \cdot \cos w + |z_1| \cdot \operatorname{sen} w \cdot i$$
$$= 2\sqrt{2} \cos 135^\circ + 2\sqrt{2} \operatorname{sen} 135^\circ i$$

$$\text{ó } \boxed{z_1 = 2\sqrt{2} \cdot (\cos 135^\circ + i \operatorname{sen} 135^\circ)}$$

Ejemplo 2

$$z_2 = -3 - 2i$$



$$|z_2| = \sqrt{3^2 + 2^2} = \sqrt{13}$$

$$|z_2| = \sqrt{13}$$

$$\varphi_2 \approx 180^\circ + 33,7^\circ$$

$$\varphi_2 \approx 213,7^\circ$$



$$\begin{aligned} \tan \alpha &= \frac{2}{3} \\ \alpha &= \arctan\left(\frac{2}{3}\right) \\ \alpha &\approx 33,7^\circ \end{aligned}$$

$$z_2 \approx \sqrt{13} \cdot (\cos 213,7^\circ + i \sin 213,7^\circ)$$

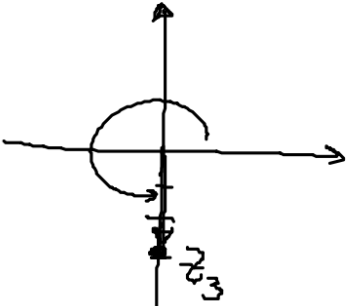
Ejemplo 3

$$z_3 = -3i$$

$$|z_3| = 3$$

$$\arg z_3 = 270^\circ$$

$$z_3 = 3 \cdot (\cos 270^\circ + i \sin 270^\circ)$$



Ejemplo 4

$$z_4 = 18 = 18 \cdot (\cos 0^\circ + i \sin 0^\circ)$$

