



COMPLEX CIRCULAR COORDINATES

Why

We can discuss z in terms of circular coordinates.¹

Definition

Let $z = (x, y) \in \mathbf{C}$. Since $z \in \mathbf{R}^2$, we can identify z with the polar coordinates of (x, y) in the plane.

The *argument* of $z \in \mathbf{C}$ is $\tan^{-1}(\operatorname{Im} z / \operatorname{Re} z)$. We denote the argument of z by $\arg z$.²

¹Future editions will expand.

²Future editions will include the geometric interpretations.

