



COMPLEX NUMBERS

Why

We want to find roots of negative numbers

Definition

A *complex number* is an ordered pair of real numbers. The *real part* of a complex number is its first coordinate. The *imaginary part* of a complex number is its second coordinate.

Notation

Let z be a complex number. We denote the real part of z by $\mathbf{Re}(z)$, read "real of z ," and the imaginary part by $\mathbf{Im}(z)$, read "imaginary of z ." So if $z = (a, b)$, then $\mathbf{Re}(z) = a$ and $\mathbf{Im}(z) = b$.



