Why

We can discuss z in terms of circular coordinates.[1]

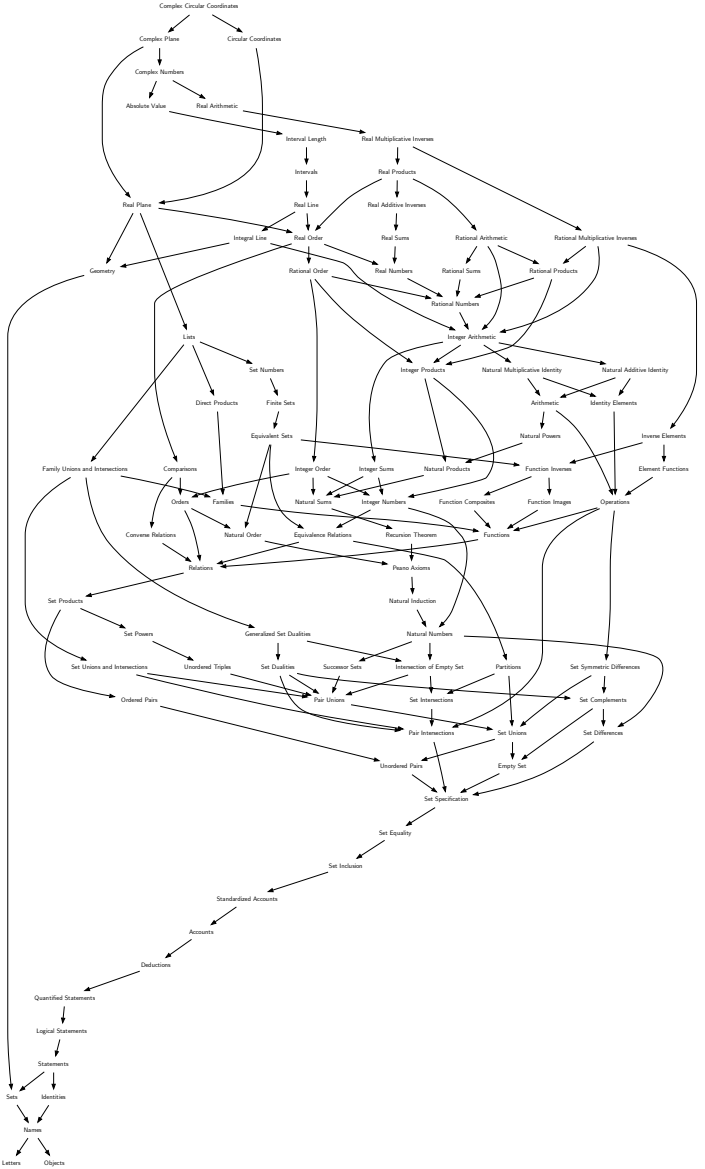
Definition

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]

[1] Future editions will expand.

[2] Future editions will include the geometric interpretations.


Complex Circular Coordinates
Complex Plane
Circular Coordinates
Complex Numbers
Absolute Value
Real Arithmetic
Interval Length
Real Multiplicative Inverses
Intervals
Real Products
Real Plane
Real Line
Real Additive Inverses
Integral Line
Real Order
Real Sums
Rational Arithmetic
Rational Multiplicative Inverses
Geometry
Rational Order
Real Numbers
Rational Sums
Rational Products
Rational Numbers
Lists
Integer Arithmetic
Set Numbers
Integer Products
Natural Multiplicative Identity
Natural Additive Identity
Direct Products
Finite Sets
Arithmetic
Identity Elements
Equivalent Sets
Natural Powers
Inverse Elements
Family Unions and Intersections
Comparisons
Integer Order
Integer Sums
Natural Products
Function Inverses
Element Functions
Orders
Families
Natural Sums
Integer Numbers
Function Composites
Function Images
Operations
Converse Relations
Natural Order
Equivalence Relations
Recursion Theorem
Functions
Relations
Peano Axioms
Natural Induction
Set Products
Set Powers
Generalized Set Dualities
Natural Numbers
Set Unions and Intersections
Unordered Triples
Set Dualities
Successor Sets
Intersection of Empty Set
Partitions
Set Symmetric Differences
Ordered Pairs
Pair Unions
Set Intersections
Set Complements
Pair Intersections
Set Unions
Set Differences
Unordered Pairs
Empty Set
Set Specification
Set Equality
Set Inclusion
Standardized Accounts
Accounts
Deductions
Quantified Statements
Logical Statements
Statements
Sets
Identities
Names
Letters
Objects