Why

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

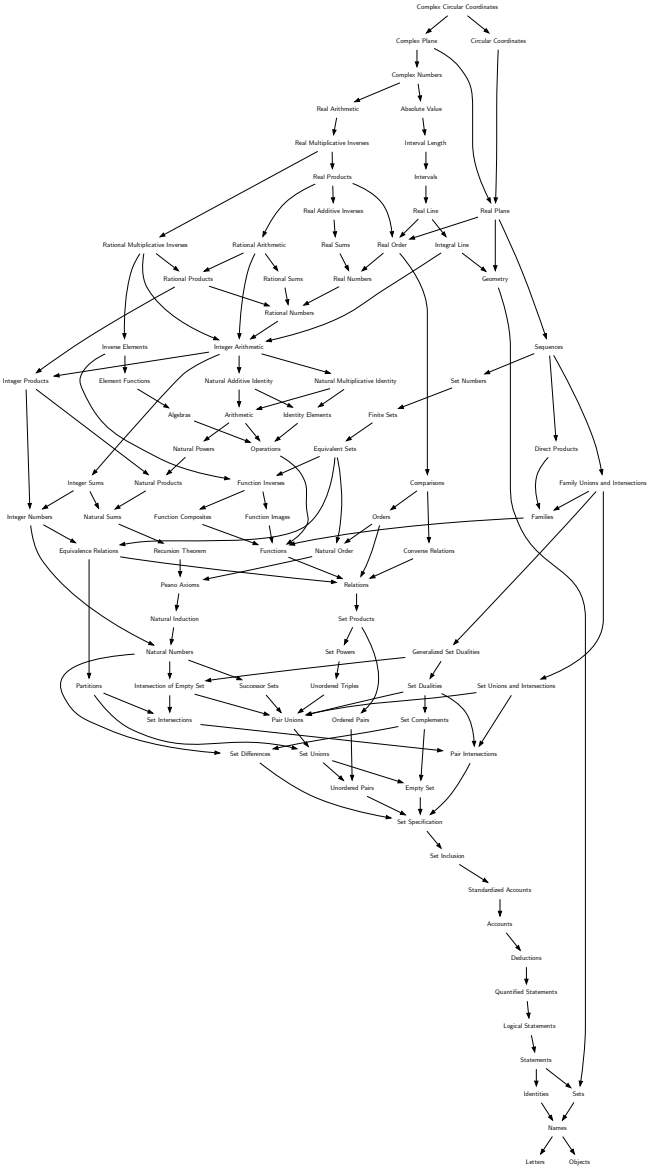
Definition

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