Why

[1]

Definition

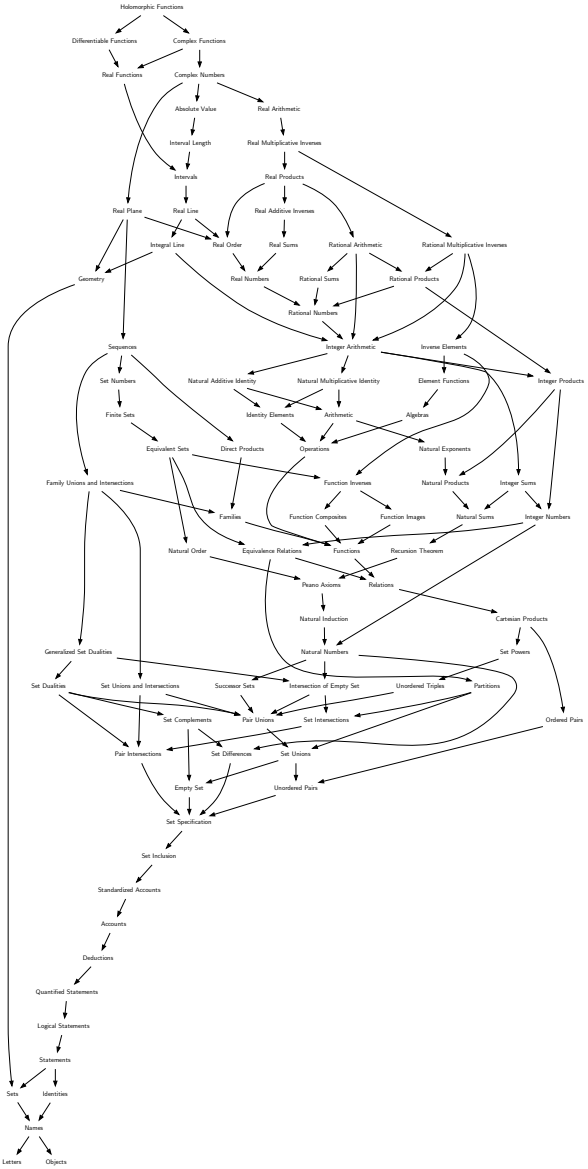
A function $f : \mathbf{C} \to \mathbf{C}$ is *holomorphic* at the point $z \in \mathbf{C}$ if the limit

$$\lim_{h \to 0} \frac{f(z+h) - f(z)}{h}$$

exists, where $h \in \mathbf{C}$. This condition is similar to saying that a function is differentiable, except that the h is complex and so the condition above encomposes all limits approaching z (all angles) in the complex plane.[2]

[1] Future notes will expand.

[2] Future editions will clarify.


Holomorphic Functions
Differentiable Functions
Complex Functions
Real Functions
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
Real Numbers
Rational Sums
Rational Products
Rational Numbers
Sequences
Integer Arithmetic
Inverse Elements
Set Numbers
Natural Additive Identity
Natural Multiplicative Identity
Element Functions
Integer Products
Finite Sets
Identity Elements
Arithmetic
Algebras
Equivalent Sets
Direct Products
Operations
Natural Exponents
Family Unions and Intersections
Function Inverses
Natural Products
Integer Sums
Families
Function Composites
Function Images
Natural Sums
Integer Numbers
Natural Order
Equivalence Relations
Functions
Recursion Theorem
Peano Axioms
Relations
Natural Induction
Cartesian Products
Generalized Set Dualities
Natural Numbers
Set Powers
Set Dualities
Set Unions and Intersections
Successor Sets
Intersection of Empty Set
Unordered Triples
Partitions
Set Complements
Pair Unions
Set Intersections
Ordered Pairs
Pair Intersections
Set Differences
Set Unions
Empty Set
Unordered Pairs
Set Specification
Set Inclusion
Standardized Accounts
Accounts
Deductions
Quantified Statements
Logical Statements
Statements
Sets
Identities
Names
Letters
Objects