Why

We name functions whose domain is the complex numbers.

Definition

A *complex function* is a complex-valued function. The domain is often an interval of the real numbers, but may be any non-empty set.[1]

Notation

Let A be a set. Let $f : A \to \mathbf{C}$. f is a complex function.

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[1]Future editions will expand the discussion, and likely motivate the definition via the genetic approach.

Complex Functions

Real Functions

Complex Numbers

Absolute Value

Real Arithmetic

Interval Length

Real Multiplicative Inverses

Intervals

Real Products

Real Additive Inverses

Real Line

Rational Multiplicative Inverses

Rational Arithmetic

Real Order

Real Sums

Rational Products

Rational Sums

Real Numbers

Integral Line

Rational Numbers

Inverse Elements

Integer Arithmetic

Element Functions

Natural Additive Identity

Natural Multiplicative Identity

Integer Products

Function Inverses

Algebras

Identity Elements

Arithmetic

Function Images

Function Composites

Operations

Natural Exponents

Functions

Integer Sums

Natural Products

Integer Numbers

Natural Sums

Equivalence Relations

Recursion Theorem

Relations

Peano Axioms

Cartesian Products

Natural Induction

Set Powers

Natural Numbers

Unordered Triples

Partitions

Successor Sets

Intersection of Empty Set

Ordered Pairs

Pair Unions

Set Intersections

Set Unions

Set Differences

Unordered Pairs

Empty Set

Pair Intersections

Geometry

Set Specification

Set Inclusion

Standardized Accounts

Accounts

Deductions

Quantified Statements

Logical Statements

Statements

Sets

Identities

Names

Letters

Objects