Why

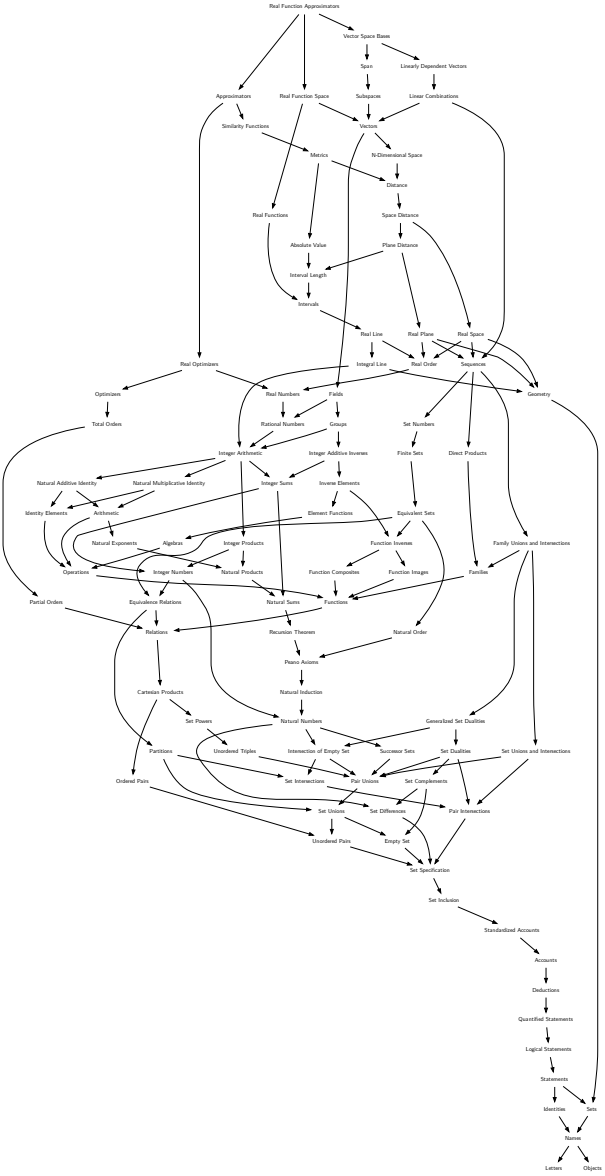
Since the set of real functions is a vector space, we may be interested in representing f in a basis of "simpler" basis functions.

There may be no such set that can reprent f. So instead we may be interested in an element $g \in g_1, \ldots, g_d$ which approximates f. [1]

Definition

A *real function approximator* for a function $f :\rightarrow$ is a function $g :\rightarrow$.

[1] Future editions will modify.


Real Function Approximators
Vector Space Bases
Span
Linearly Dependent Vectors
Approximators
Real Function Space
Subspaces
Linear Combinations
Similarity Functions
Vectors
Metrics
N-Dimensional Space
Distance
Real Functions
Space Distance
Absolute Value
Plane Distance
Interval Length
Intervals
Real Line
Real Plane
Real Space
Real Optimizers
Integral Line
Real Order
Sequences
Optimizers
Real Numbers
Fields
Geometry
Total Orders
Rational Numbers
Groups
Set Numbers
Integer Arithmetic
Integer Additive Inverses
Finite Sets
Direct Products
Natural Additive Identity
Natural Multiplicative Identity
Integer Sums
Inverse Elements
Identity Elements
Arithmetic
Element Functions
Equivalent Sets
Natural Exponents
Algebras
Integer Products
Function Inverses
Family Unions and Intersections
Operations
Integer Numbers
Natural Products
Function Composites
Function Images
Families
Partial Orders
Equivalence Relations
Natural Sums
Functions
Relations
Recursion Theorem
Natural Order
Peano Axioms
Cartesian Products
Natural Induction
Set Powers
Natural Numbers
Generalized Set Dualities
Partitions
Unordered Triples
Intersection of Empty Set
Successor Sets
Set Dualities
Set Unions and Intersections
Ordered Pairs
Set Intersections
Pair Unions
Set Complements
Set Unions
Set Differences
Pair Intersections
Unordered Pairs
Empty Set
Set Specification
Set Inclusion
Standardized Accounts
Accounts
Deductions
Quantified Statements
Logical Statements
Statements
Identities
Sets
Names
Letters
Objects