Why

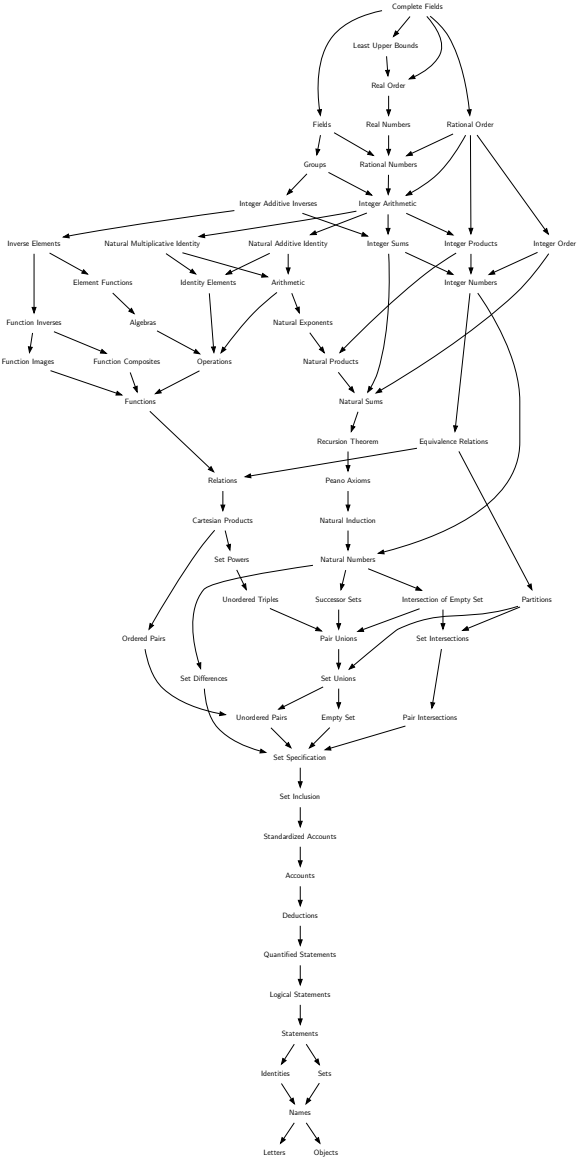
We want the a field which corresponds to points on the real line.[1]

Definition

An ordered field[2] is *complete* if every nonempty subset bounded from above has a least upper bound.

[1] Future editions are likely to modify this why.

[2] To be defined in future editions, but we take the usual definition of a field with an order. See, for example Rational Order or Real Order).


Complete Fields
Least Upper Bounds
Real Order
Fields
Real Numbers
Rational Order
Groups
Rational Numbers
Integer Additive Inverses
Integer Arithmetic
Inverse Elements
Natural Multiplicative Identity
Natural Additive Identity
Integer Sums
Integer Products
Integer Order
Element Functions
Identity Elements
Arithmetic
Integer Numbers
Function Inverses
Algebras
Natural Exponents
Function Images
Function Composites
Operations
Natural Products
Functions
Natural Sums
Recursion Theorem
Equivalence Relations
Relations
Peano Axioms
Cartesian Products
Natural Induction
Set Powers
Natural Numbers
Unordered Triples
Successor Sets
Intersection of Empty Set
Partitions
Ordered Pairs
Pair Unions
Set Intersections
Set Differences
Set Unions
Unordered Pairs
Empty Set
Pair Intersections
Set Specification
Set Inclusion
Standardized Accounts
Accounts
Deductions
Quantified Statements
Logical Statements
Statements
Identities
Sets
Names
Letters
Objects