Why

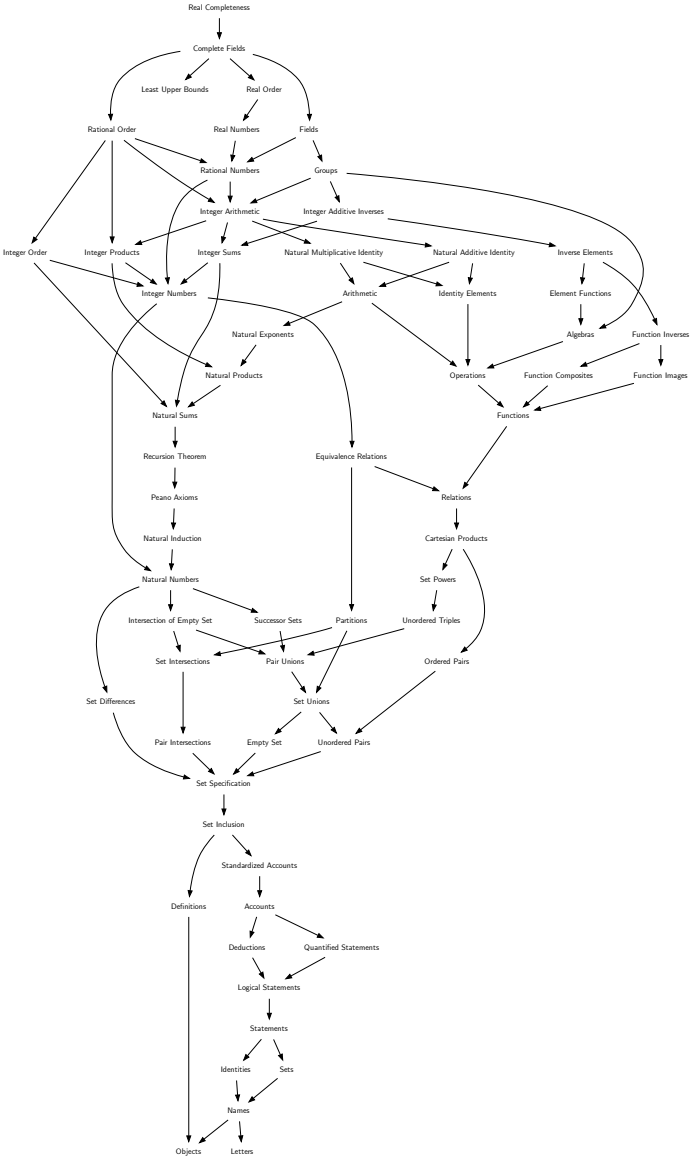
Is the set of real numbers a complete ordered field (in the sense of *Complete Fields*?

Main Result

Proposition 1. $(\mathbf{R}, +, \cdot, <)$ *is a complete ordered field.*[1]

Proof. The supremum of a set of nonempty real numbers bounded from above R is $\cup R$. □

[1] The account will appear in future editions.


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