Why

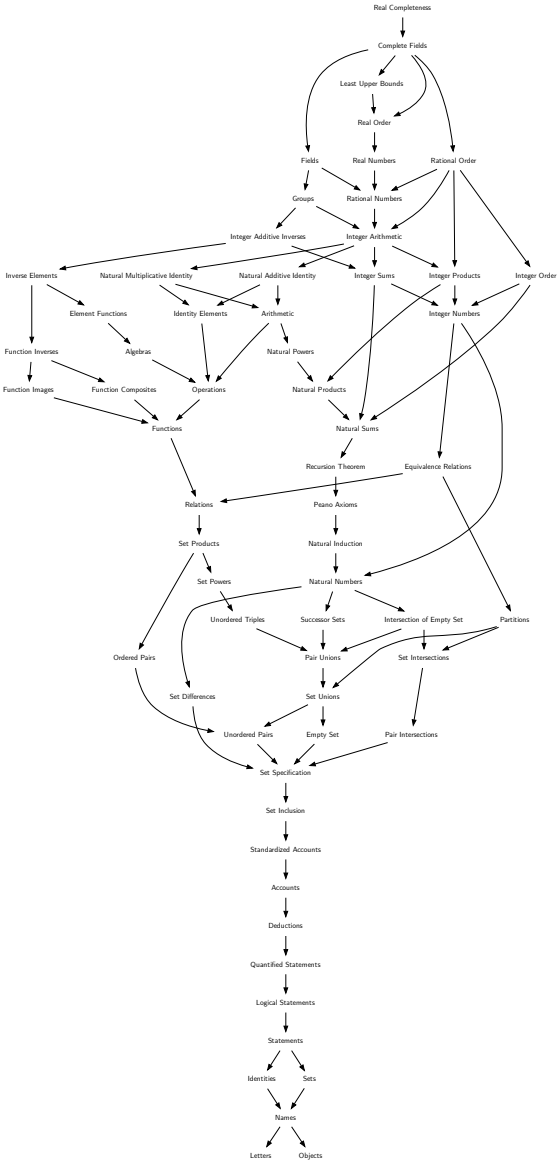
Is the set of real numbers a complete ordered field (in the sense of Complete Fields?

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
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 Powers
Function Images
Function Composites
Operations
Natural Products
Functions
Natural Sums
Recursion Theorem
Equivalence Relations
Relations
Peano Axioms
Set 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