Definition

The field of *algebraic geometry* is the study of the set of solutions of a system of polynomial equations. In *real algebraic geometry*, we study the *real algebraic sets* — those subsets of $\mathbf{R}^n$ defined by polynomial equations.

Real Algebraic Geometry

Real Polynomials

Equations

Real Arithmetic

Real Multiplicative Inverses

Real Products

Real Additive Inverses

Rational Multiplicative Inverses

Real Order

Real Sums

Rational Arithmetic

Rational Order

Rational Products

Real Numbers

Rational Sums

Rational Numbers

Natural Fractions

Integer Arithmetic

Inverse Elements

Integer Products

Natural Additive Identity

Natural Multiplicative Identity

Function Inverses

Element Functions

Identity Elements

Natural Arithmetic

Function Images

Function Composites

Integer Order

Integer Sums

Operations

Natural Powers

Functions

Comparisons

Integer Numbers

Natural Products

Converse Relations

Orders

Equivalence Relations

Natural Sums

Relations

Natural Order

Recursion Theorem

Ordered Pair Projections

Peano Axioms

Set Products

Natural Induction

Ordered Pairs

Set Powers

Natural Numbers

Unordered Triples

Partitions

Successor Sets

Intersection of Empty Set

Pair Unions

Set Symmetric Differences

Set Intersections

Set Unions

Set Complements

Pair Intersections

Unordered Pairs

Empty Set

Set Differences

Set Specification

Set Equality

Set Inclusion

Deductions

Quantified Statements

Logical Statements

Statements

Identities

Sets

Names

Letters

Objects