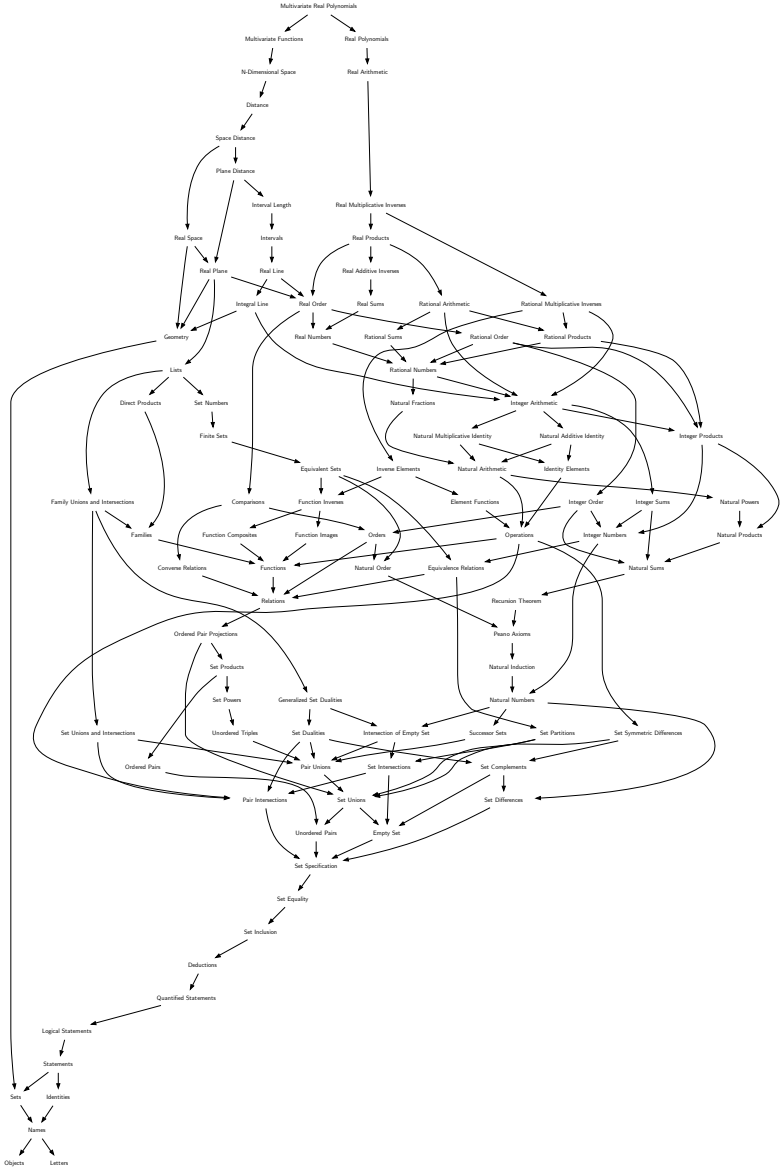
Definition

A *multivariate polynomial* is a function $f : \mathbf{R}^n \to \mathbf{R}$ whose terms are *monomials*. The *degree* of a monomial is the sum of the degrees of the each of the variable terms in it. The *degree* of a multvariate polynomial is the largest degree of its terms.


Multivariate Real Polynomials
Multivariate Functions
Real Polynomials
N-Dimensional Space
Real Arithmetic
Distance
Space Distance
Plane Distance
Interval Length
Real Multiplicative Inverses
Real Space
Intervals
Real Products
Real Plane
Real Line
Real Additive Inverses
Integral Line
Real Order
Real Sums
Rational Arithmetic
Rational Multiplicative Inverses
Geometry
Real Numbers
Rational Sums
Rational Order
Rational Products
Lists
Rational Numbers
Direct Products
Set Numbers
Natural Fractions
Integer Arithmetic
Finite Sets
Natural Multiplicative Identity
Natural Additive Identity
Integer Products
Equivalent Sets
Inverse Elements
Natural Arithmetic
Identity Elements
Family Unions and Intersections
Comparisons
Function Inverses
Element Functions
Integer Order
Integer Sums
Natural Powers
Families
Function Composites
Function Images
Orders
Operations
Integer Numbers
Natural Products
Converse Relations
Functions
Natural Order
Equivalence Relations
Natural Sums
Relations
Recursion Theorem
Ordered Pair Projections
Peano Axioms
Set Products
Natural Induction
Set Powers
Generalized Set Dualities
Natural Numbers
Set Unions and Intersections
Unordered Triples
Set Dualities
Intersection of Empty Set
Successor Sets
Set Partitions
Set Symmetric Differences
Ordered Pairs
Pair Unions
Set Intersections
Set Complements
Pair Intersections
Set Unions
Set Differences
Unordered Pairs
Empty Set
Set Specification
Set Equality
Set Inclusion
Deductions
Quantified Statements
Logical Statements
Statements
Sets
Identities
Names
Objects
Letters