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 Polynomials

Multivariate Functions

Real Polynomials

N-Dimensional Space

Real Arithmetic

Distance

Space Distance

Plane Distance

Interval Length

Real Multiplicative Inverse

Real Space

Intervals

Real Products

Real Plane

Real Line

Real Additive Inverses

Integral Line

Real Order

Rational Multiplicative Inverse

Real Sums

Rational Arithmetic

Geometry

Rational Order

Real Numbers

Rational Sums

Rational Products

Rational Numbers

Lists

Integer Arithmetic

Set Numbers

Natural Additive Identity

Natural Multiplicative Identity

Integer Products

Direct Products

Finite Sets

Identity Elements

Arithmetic

Inverse Elements

Equivalent Sets

Natural Powers

Family Unions and Intersections

Function Inverses

Element Functions

Comparisons

Integer Order

Integer Sums

Natural Products

Families

Function Images

Function Composites

Operations

Orders

Integer Numbers

Functions

Equivalence Relations

Converse Relations

Natural Order

Natural Sums

Recursion Theorem

Relations

Peano Axioms

Set Products

Natural Induction

Generalized Set Dualities

Set Powers

Natural Numbers

Set Unions and Intersections

Partitions

Intersection of Empty Set

Set Dualities

Unordered Triples

Successor Sets

Set Symmetric Differences

Set Intersections

Ordered Pairs

Pair Unions

Set Complements

Pair Intersections

Set Unions

Set Differences

Unordered Pairs

Empty Set

Set Specification

Set Equality

Set Inclusion

Standardized Accounts

Accounts

Deductions

Quantified Statements

Logical Statements

Statements

Sets

Identities

Names

Letters

Objects