Why

1

Definition

The *dimension* of a nonempty affine set is the dimension of the subspace parallel to it. The *dimension* of the empty set (viewed as an affine set) is the -1. Naturally, the *points*, *lines* and *planes* are affine sets of dimension 0, 1, and 2 respectively.

---

[1]Future editions will include.

Affine Set Dimensions

Subspace Dimension

Vector Space Dimension

Vector Space Bases

Affine Sets and Subspaces — Span — Linearly Dependent Vectors

Translate Sets — Subspaces — Linear Combinations

Vector — Real Linear Combinations

Affine Sets — Real Vectors

N-Dimensional Space — Space Vector — Plane Vector Sums and Differences

Distance — Plane Vectors

Space Distance

Plane Distance

Interval Length

Real Space — Intervals

Real Plane — Real Line

Real Order — Integral Line

Geometry — Rational Order — Real Numbers — Fields

Rational Numbers — Rings

Lists — Integer Arithmetic

Set Numbers — Integer Products — Natural Additive Identity — Natural Multiplicative Identity

Finite Sets — Arithmetic — Identity Elements

Direct Products — Equivalent Sets — Natural Powers

Family Unions and Intersections — Function Inverses — Comparison — Integer Order — Natural Products — Integer Sums

Families — Function Images — Function Composite — Orders — Integer Numbers — Natural Sums — Operations

Functions — Converse Relations — Equivalence Relations — Natural Order — Recursion Theorem

Relations — Peano Axioms

Set Products — Natural Induction

Generalized Set Dualities — Set Powers — Natural Numbers

Set Unions and Intersections — Set Dualities — Unordered Triples — Intersection of Empty Set — Successor Sets — 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 Inclusion

Standardized Accounts

Accounts

Deductions

Quantified Statements

Logical Statements

Statements

Sets — Identities

Names

Letters — Objects