Why

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 Dimensions

Vector Space Dimensions

Vector Space Bases

Affine Sets and Subspaces — Span — Linearly Dependent Vectors

Translate Sets — Subspaces — Linear Combinations

Affine Sets — Vectors

N-Dimensional Space

Distance

Space Distance

Plane Distance

Interval Length

Intervals

Real Line — Real Plane — Real Space

Integral Line — Real Order — Sequences

Geometry — Real Numbers — Fields — Direct Products

Set Numbers — Rational Numbers — Groups

Finite Sets — Integer Arithmetic — Integer Additive Inverses

Natural Addition Identity — Natural Multiplicative Identity — Integer Sums — Inverse Elements

Equivalent Sets — Arithmetic — Identity Elements — Element Functions — Family Unions and Intersections

Integer Products — Natural Powers — Algebras — Function Inverses

Integer Numbers — Natural Products — Operations — Function Composites — Function Images — Families

Equivalence Relations — Natural Sums — Functions

Natural Order — Recursion Theorem — Relations

Peano Axioms

Natural Induction

Set Products

Natural Numbers — Set Powers — Generalized Set Dualities

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

Set Intersections — Pair Unions — Ordered Pairs — Set Complements

Set Differences — Set Unions — Pair Intersections

Unordered Pairs — Empty Set

Set Specification

Set Inclusion

Standardized Accounts

Accounts

Deduction

Quantified Statements

Logical Statements

Statements

Sets — Identities

Names

Letters — Objects

4