Why

If we can interpret the points in $\mathbf{R}^2$ as displacements, what of the points in $\mathbf{R}^3$

Definition

A *space vector* (or *vector*, *three-dimensional vector*, *3-vector*) is an element of $\mathbf{R}^3$.[1]

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[1]Future editions will include visualizations.

Space Vectors

Plane Vectors

Real Plane

Real Order

Rational Order

Real Numbers

Geometry

Rational Numbers

Integer Arithmetic

Lists

Integer Products

Natural Multiplicative Identity

Natural Additive Identity

Set Numbers

Arithmetic

Identity Elements

Finite Sets

Natural Powers

Equivalent Sets

Direct Products

Natural Products

Integer Sums

Integer Order

Comparisons

Function Inverses

Family Unions and Intersections

Natural Sums

Integer Numbers

Orders

Operations

Function Images

Function Composites

Families

Recursion Theorem

Equivalence Relations

Natural Order

Converse Relations

Functions

Peano Axioms

Relations

Natural Induction

Set Products

Natural Numbers

Set Powers

Generalized Set Dualities

Set Symmetric Differences

Partitions

Intersection of Empty Set

Successor Sets

Unordered Triples

Set Dualities

Set Unions and Intersections

Set Complements

Set Intersections

Pair Unions

Ordered Pairs

Set Differences

Set Unions

Pair Intersections

Empty Set

Unordered Pairs

Set Specification

Set Equality

Set Inclusion

Standardized Accounts

Accounts

Deductions

Quantified Statements

Logical Statements

Statements

Sets

Identities

Names

Letters

Objects

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