Definition

A linear transformation $T : V \to W$ between two normed vector spaces is *continuous* if it is continuous with respect to the metric induced by the norms.

Continuous Linear Transformations

Norms

Functionals

Real Norm · Space Norm · Vector · Metric Continuity

Real Vectors

N-Dimensional Space · Plane Norm · Space Vector · Plane Vector Sums and Differences · Metrics · Real Continuity

Distance · Plane Vectors · Absolute Value

Space Distance

Plane Distance

Interval Length

Real Space · Intervals

Real Plane · Real Line

Integral Line · Real Order

Geometry · Fields · Real Numbers · Rational Order

Lists · Rings · Rational Numbers

Direct Products · Set Numbers · Integer Arithmetic · Natural Fractions

Finite Sets · Natural Multiplicative Identity · Natural Additive Identity · Integer Products

Equivalent Sets · Identity Elements · Natural Arithmetic

Family Unions and Intersections · Function Inverses · Comparisons · Integer Order · Integer Sums · Natural Powers

Families · Function Images · Function Composites · Operations · Orders · Integer Numbers · Natural Products

Functions · Equivalence Relations · Converse Relations · Natural Order · Natural Sums

Relations · Recursion Theorem

Ordered Pair Projections · Peano Axioms

Set Products · Natural Induction

Generalized Set Dualities · Set Powers · Natural Numbers

Partitions · Set Dualities · Intersection of Empty Set · Set Unions and Intersections · Set Symmetric Differences · Unordered Triples · Successor Sets

Set Intersections · Set Complements · Pair Unions · Ordered Pairs

Pair Intersections · Set Unions · Set Differences

Empty Set · Unordered Pairs

Set Specification

Set Equality

Set Inclusion

Deductions

Quantified Statements

Logical Statements

Statements

Sets · Identities

Names

Letters · Objects