Why

1

Definition

A *dimension reducer* is a function $f : \mathbf{R}^m \to \mathbf{R}^d$ where $d < m$. The task of constructing a dimension reducer is sometimes called *representation learning* or *dimension reduction.*

---

[1]Future editions will include.

Dimension Reducers

Real Functions

Intervals

Real Line

Real Order

Real Numbers

Integral Line

Rational Numbers

Integer Arithmetic

Natural Multiplicative Identity

Natural Additive Identity

Identity Elements

Arithmetic

Operations

Natural Powers

Integer Products

Functions

Natural Products

Integer Sums

Integer Numbers

Natural Sums

Equivalence Relations

Recursion Theorem

Relations

Peano Axioms

Set Products

Natural Induction

Set Powers

Natural Numbers

Unordered Triples

Partitions

Successor Sets

Intersection of Empty Set

Ordered Pairs

Pair Unions

Set Intersections

Set Unions

Set Differences

Unordered Pairs

Empty Set

Pair Intersections

Geometry

Set Specification

Set Inclusion

Standardized Accounts

Accounts

Deductions

Quantified Statements

Logical Statements

Statements

Sets

Identities

Names

Letters

Objects