Why

One can trivially generalize number partitions to the case of integers, where parts of the partitions can be zero.

Definition

Suppose n is a natural number. A *partition* of n is a list of *nonincreasing* natural numbers whose sum is n.

Integer Partitions

Natural Sums

Lists

Set Numbers

Direct Products

Recursion Theorem

Finite Sets

Equivalent Sets

Natural Order

Function Inverses

Family Unions and Intersections

Peano Axioms

Function Images

Function Composites

Families

Functions

Equivalence Relations

Natural Induction

Relations

Ordered Pair Projections

Set Partitions

Set Products

Natural Numbers

Set Powers

Generalized Set Dualities

Ordered Pairs

Successor Sets

Unordered Triples

Intersection of Empty Set

Set Dualities

Set Unions and Intersections

Pair Unions

Set Complements

Set Intersections

Set Unions

Set Differences

Pair Intersections

Unordered Pairs

Empty Set

Set Specification

Set Equality

Set Inclusion

Deductions

Quantified Statements

Logical Statements

Statements

Identities

Sets

Names

Letters

Objects