Why

We name a set together with an operation.

Definition

An *algebra* is an ordered pair whose first element is a non-empty set and whose second element is an operation on that set. The *ground set* of the algebra is the set on which the operation is defined.

Notation

Let A be a non-empty set and let $+ : A \times A \to A$ be an operation on A. As usual, we denote the ordered pair by $(A, +)$.

Algebras

Operations

Functions

Relations　　　　　　　　Pair Intersections

Set Products

Set Powers

Unordered Triples　　　Ordered Pairs

Set Symmetric Differences　　Pair Unions

Set Complements　　Set Unions

Set Differences　　Empty Set　　Unordered Pairs

Set Specification

Set Inclusion

Standardized Accounts

Accounts

Deductions

Quantified Statements

Logical Statements

Statements

Identities　　Sets

Names

Letters　　Objects

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