Absolute Value

Why

We want a notion of distance between elements of the real line.

Definition

We define a function mapping a real number to its length from zero.

Notation

We denote the absolute value of a real number $a \in \mathbf{R}$ by $|a|$. Thus $|\cdot| : \mathbf{R} \to \mathbf{R}$ can be viewed as a real-valued function on the real numbers which is nonnegative.

Absolute Value

Length Natural Differences Real Numbers

Natural Sums

Recursion Theorem

Peano Axioms

Natural Induction

Natural Numbers

Successor Sets Intersection of Empty Set

Pair Unions Set Intersections Set Differences

Set Unions Pair Intersections

Empty Set Unordered Pairs

Set Specification

Set Inclusion

Standardized Accounts

Definitions Accounts

Deductions Quantified Statements

Logical Statements

Statements

Identities Sets

Names

Objects Letters