Definition

Given a set A of a topological space, a point x is said to be *in the closure of* A if, for each neighborhood N of X, $N \cap A \neq \varnothing$. The *closure* of A is the set of such points.

Notation

The closure of a set A of a topological space is denoted $\bar{A}$. Other notation includes $\mathrm{cl}(A)$.

Topological Closures

Topological Neighborhoods

Topologies

Metrics

Distance

Real Set Closures

Space Distance

Real Limits

Plane Distance

Absolute Value

Interval Length

Intervals

Real Space

Real Plane

Real Line

Integral Line

Real Order

Real Sequences

Geometry

Sequences

Rational Order

Real Numbers

Lists

Rational Numbers

Set Numbers

Direct Products

Integer Arithmetic

Natural Fractions

Finite Sets

Integer Products

Natural Additive Identity

Natural Multiplicative Identity

Equivalent Sets

Identity Elements

Natural Arithmetic

Comparisons

Function Inverse

Family Unions and Intersections

Integer Order

Natural Powers

Integer Sums

Orders

Function Composites

Function Images

Families

Integer Numbers

Operations

Natural Products

Converse Relations

Natural Order

Functions

Equivalence Relations

Natural Sums

Relations

Recursion Theorem

Ordered Pair Projections

Peano Axioms

Set Products

Natural Induction

Set Powers

Generalized Set Dualities

Natural Numbers

Set Partitions

Unordered Triples

Intersection of Empty Set

Set Unions and Intersections

Successor Sets

Set Dualities

Set Symmetric Differences

Ordered Pairs

Set Intersections

Pair Unions

Set Complements

Set Unions

Pair Intersections

Set Differences

Unordered Pairs

Empty Set

Set Specification

Set Equality

Set Inclusion

Deductions

Quantified Statements

Logical Statements

Statements

Sets

Identities

Names

Letters

Objects