Definition

Suppose $T \in \mathcal{L}(V)$ is self-adjoint operator over a field $\mathbf{F}$ which is $\mathbf{R}$ or $\mathbf{C}$. T is *nonnegative* (or *positive semidefinite*) if

$$\langle Tv, v\rangle \geq 0 \quad \text{for all}$$

for all $v \in V$.


Nonnegative Operator
Operation
Inner Products
Linear Transformations
Complex Inner Products
Derivations of Scalar Multiples
Derivations of Sums
Transformations
Real Polynomial Derivations
Vector Space of Polynomials
Real Integral Additivity
Real Integral Homogeneity
Real Inner Products
Linear Combinations
Real Differentiable Functions
Real Polynomials
Simple Integral Additivity
Simple Integral Homogeneity
Real Inner Product
Real Linear Functions
Vectors
Simple Integrals
Real Norm
Real Linear Combinations
Fields
Simple Functions
Measurable Functions
Real Vectors
Real Functions
Space Inner Product
Measures
N-Dimensional Space
Space Norms
Plane Inner Product
Plane Vector Sums and Differences
Space Vectors
Sigma Algebras
Distance
Right Triangle Sales Relation
Plane Norm
Real Series
Extended Real Numbers
Space Distance
Real Squares
Plane Vectors
Complex Numbers
Real Limits
Plane Distance
Absolute Value
Real Arithmetic
Interval Length
Real Multiplicative Inverses
Rings
Real Space
Intervals
Real Products
Square Numbers
Real Plane
Real Line
Real Addition Inverses
Integral Log
Real Sequences
Real Order
Real Sums
Rational Arithmetic
Rational Multiplicative Inverses
Squares
Geometry
Sequences
Rational Order
Real Numbers
Rational Products
Rational Sums
Subset Algebras
Lists
Rational Numbers
Cardinality
Direct Product of
Set Numbers
Natural Functions
Integer Arithmetic
Integer Products
Finite Sets
Natural Addition Identity
Natural Multiplication Identity
Inverse Elements
Equivalent Sets
Natural Arithmetic
Identity Elements
Element Functions
Family Unions and Intersections
Natural Powers
Integer Order
Integer Sums
Comparison
Function Inverses
Operations
Natural Products
Integer Numbers
Orders
Families
Function Images
Function Composites
Natural Sums
Natural Order
Equivalence Relations
Concrete Relations
Functions
Recursion Theorem
Relations
Peano Axioms
Ordered Pair Projections
Natural Induction
Characteristic Functions
Set Products
Subset Systems
Generalized Set Dualities
Natural Numbers
Set Powers
Ordered Pairs
Set Dualities
Set Unions and Intersections
Intersection of Empty Set
Successor Sets
Partitions
Set Symmetric Differences
Unordered Triples
Set Intersections
Set Complements
Pair Unions
Pair Intersections
Set Differences
Set Unions
Empty Set
Unordered Pairs
Set Specification
Set Equality
Set Inclusion
Deduction
Quantified Statements
Logical Statements
Statements
Sets
Mentions
Names
Letters
Objects