Definition

The matrix $A \in \mathbf{R}^{d \times d}$ is *antisymmetric matrix* (or *skew-symmetric matrix*) if $A^\top = -A$.

Antisymmetric Matrices

Symmetric Matrices

Matrix Transpose — Symmetric Real Matrices

Vector as Matrices

Real Inner Product — Real Matrices

Real Norm — Space Inner Product — Linear Equations

Space Norm — Real Vector — Linear Functions — Arrays

Plane Norm — Plane Inner Product — N-Dimensional Space — Plane Vector Sums and Differences — Space Vectors

Absolute Value — Right Triangle Sides Relation — Distance — Plane Vectors

Real Square — Space Distance

Real Arithmetic — Plane Distance

Interval Length — Real Multiplicative Inverse

Intervals — Real Space — Real Products

Square Numbers — Real Line — Rational Multiplicative Inverse — Rational Arithmetic — Real Order — Real Sums — Real Summation

Square — Integral Line — Geometry — Real Plane — Real Additive Inverse

Rational Products — Rational Sum — Rational Order — Real Numbers — Natural Summation

Rational Numbers — Lists

Integer Arithmetic — Set Numbers — Direct Products

Integer Products — Natural Multiplicative Identity — Natural Additive Identity — Finite Sets

Arithmetic — Identity Elements — Equivalent Sets — Inverse Elements — Family Operations — Family Unions and Intersections

Natural Powers — Integer Sum — Natural Equations — Integer Order — Comparisons — Element Functions — Function Inverses — Families

Natural Products — Integer Number — Equations — Orders — Operations — Function Composites — Function Images

Natural Sums — Natural Order — Converse Relation — Equivalence Relation — Functions

Recursion Theorem — Relations

Peano Axioms — Ordered Pair Projections

Natural Induction — Set Products

Natural Numbers — Set Powers — Generalized Set Dualities

Set Symmetric Differences — Successor Sets — Unordered Triples — Set Dualities — Intersection of Empty Set — Partition — Set Unions and Intersections

Set Complements — Pair Unions — Set Intersections — Ordered Pairs

Set Differences — Set Unions — Pair Intersections

Empty Set — Unordered Pairs

Set Specification

Set Equality

Set Inclusion

Deductions

Quantified Statements

Logical Statements

Statements

Sets — Identities

Names

Letters — Objects