Why

The set of invertible matricesforms a group under matrix multiplication.

Definition

The *real general linear group* of *degree n* is the set of invertible $n \times n$ real matrices.

Real General Linear Groups
Real Matrix Inverses
Real Matrix-Matrix Products
Real Matrix-Vector Products
Real Linear Combinations
Vectors as Matrices
Real Matrices
Real Inner Product
Real Linear Equations
Real Norm
Space Inner Product
Arrays
Linear Functions
Real Vectors
Space Norm
Space Vectors
Plane Vector Sums and Differences
N-Dimensional Space
Plane Norm
Plane Inner Product
Plane Vector
Distance
Absolute Value
Right Triangle Sides Relation
Space Distance
Real Squares
Plane Distance
Real Arithmetic
Interval Length
Real Multiplicative Inverses
Intervals
Real Space
Real Products
Square Numbers
Real Plane
Real Line
Real Additive Inverses
Square
Real Summation
Real Order
Real Sums
Rational Multiplicative Inverses
Rational Arithmetic
Integral Line
Geometry
Natural Summation
Inverse Elements
Rational Order
Real Numbers
Rational Products
Rational Sums
Lists
Element Functions
Rational Numbers
Direct Products
Set Number
Natural Fractions
Integer Arithmetic
Finite Sets
Natural Additive Identity
Natural Multiplicative Identity
Integer Products
Family Operations
Equivalent Sets
Natural Arithmetic
Identity Elements
Family Unions and Intersections
Function Inverses
Operations
Comparisons
Natural Equations
Integer Order
Integer Sums
Natural Powers
Families
Function Composites
Function Images
Equations
Orders
Integer Numbers
Natural Products
Functions
Equivalence Relations
Converse Relation
Natural Order
Natural Sums
Relations
Recursion Theorem
Ordered Pair Projections
Peano Axioms
Set Products
Natural Induction
Generalized Set Dualities
Set Powers
Natural Numbers
Set Unions and Intersections
Partitions
Intersection of Empty Set
Set Dualities
Unordered Triples
Successor Sets
Set Symmetric Differences
Set Intersections
Pair Unions
Set Complements
Ordered Pairs
Pair Intersections
Set Unions
Set Differences
Empty Set
Unordered Pairs
Set Specification
Set Equality
Set Inclusion
Deductions
Quantified Statements
Logical Statements
Statements
Identities
Sets
Names
Letters
Objects