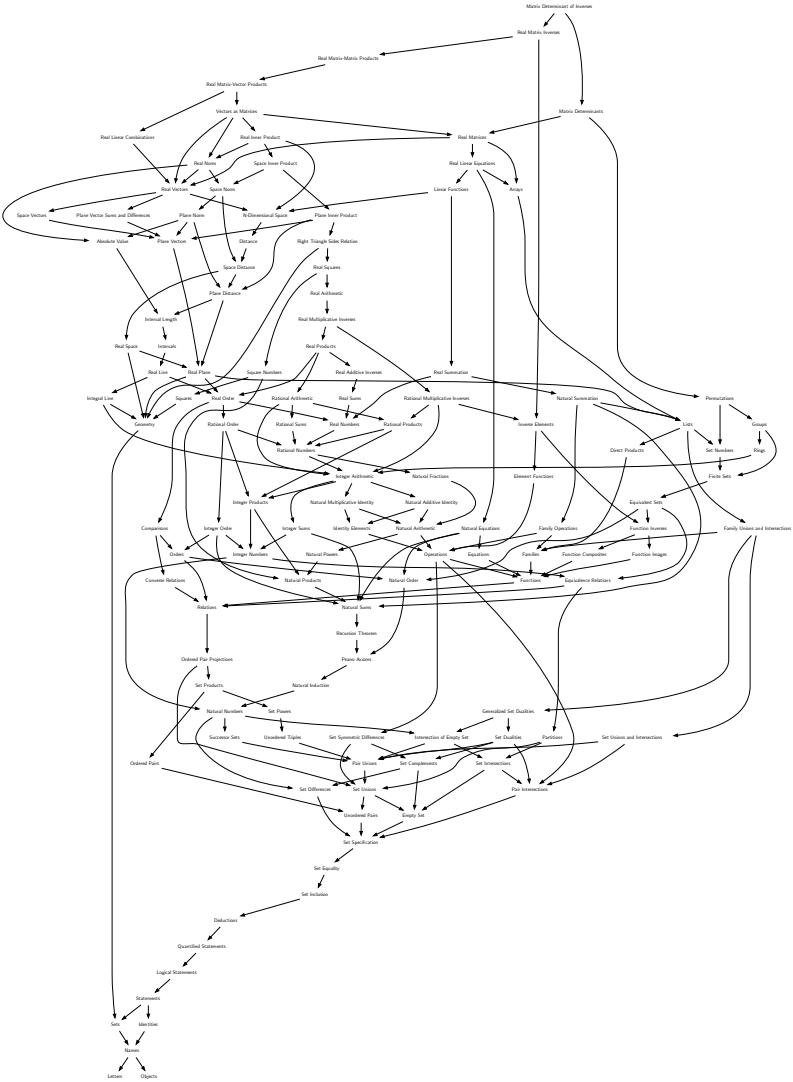
Result

Proposition 1. *The determinant of an invertible square real matrix is the multiplicative inverse of the determinant of the matrix.*

Proof. Let $A \in \mathbf{R}^{n \times n}$ be invertible. We want to show that

$$\det(A^{-1}) = (det(A))^{-1}.$$

□


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