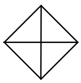


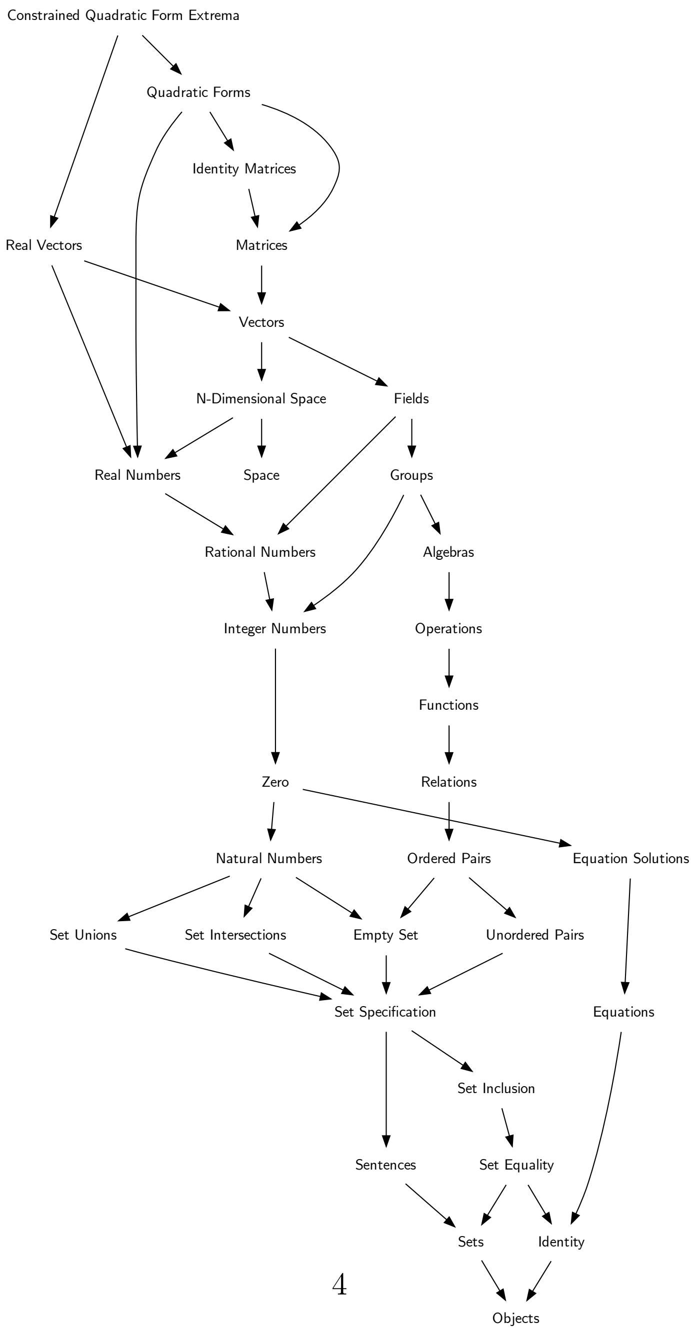
Constrained Quadratic Form Extrema

Why

Eigenvalues

Result

Proposition **1.** *A necessary condition for a maximizer of $x^T Ax$ subject to $x \in \mathbf{R}^n$ and $x^T x = 1$ is that $Ax = \lambda x$ where λ is the Lagrange multiplier... TODO: lagrange multiplier, gradient, quadratic form, necessary conditions, etc.*


Constrained Quadratic Form Extrema
Quadratic Forms
Identity Matrices
Real Vectors
Matrices
Vectors
N-Dimensional Space
Fields
Real Numbers
Space
Groups
Rational Numbers
Algebras
Integer Numbers
Operations
Functions
Zero
Relations
Natural Numbers
Ordered Pairs
Equation Solutions
Set Unions
Set Intersections
Empty Set
Unordered Pairs
Set Specification
Equations
Set Inclusion
Sentences
Set Equality
Sets
Identity
Objects