Why

TODO Need for perfect elimination orderings.

definition

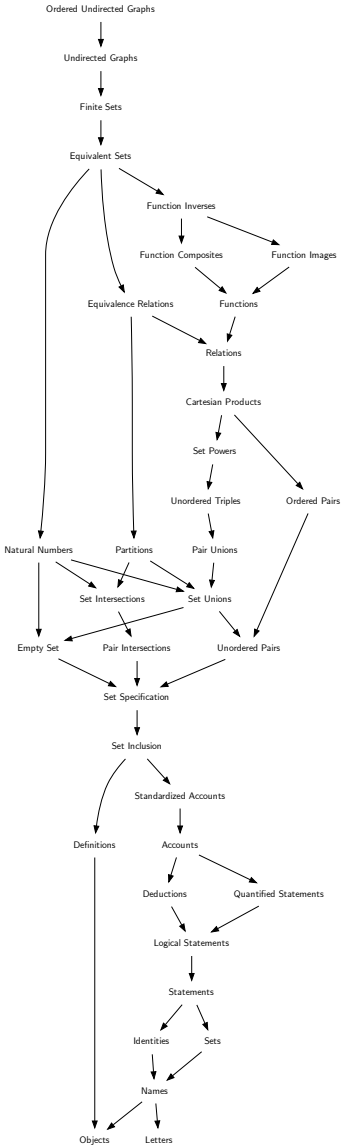
An *ordering* of an undirected graph is a numbering of its vertices. An *ordered undirected graph* is a triple: the first two objects as an ordered pair are an undirected graph and the third object is a numbering of this graphs vertices.

Notation

Let $G = (V, E)$ be an undirected graph with $n = |V|$. Let $\sigma : \{1, 2, \ldots, n\} \to V$ be a numbering of V. We denote the ordered graph consisting of G and σ as $G_\sigma = (V, E, \sigma)$.

Array Visualization

We visualize ordered graphs as triangular arrays by


Ordered Undirected Graphs
Undirected Graphs
Finite Sets
Equivalent Sets
Function Inverses
Function Composites
Function Images
Equivalence Relations
Functions
Relations
Cartesian Products
Set Powers
Unordered Triples
Ordered Pairs
Natural Numbers
Partitions
Pair Unions
Set Intersections
Set Unions
Empty Set
Pair Intersections
Unordered Pairs
Set Specification
Set Inclusion
Standardized Accounts
Definitions
Accounts
Deductions
Quantified Statements
Logical Statements
Statements
Identities
Sets
Names
Objects
Letters