TODO: make this not jsut the edge set...

Why

Tree branches split and do not recombine. We formalize this property in the language of graphs.

Definition

A *tree* is a connected and acyclic undirected graph. A *forest* is an undirected graph if it does not contain any cycles.

Notation

Let $T = (V, E)$ be a tree, a mnemonic for "tree."

Properties

PROPOSITION **1.** *A unique path exists between any two vertices of a tree.*

Proof. The path exists because a tree is connected. The path is unique, since were it not, we could create a cycle by combining these paths. $\square$

Trees

Graphs

Unordered Pairs   Set Unions

Set Specification

Set Inclusion

Empty Set

Set Equality

Standardized Accounts

Identity   Accounts

Deductions   Quantified Statements

Logical Statements

Statements

Identities   Sets

Objects