## Why

We consider elements of one set which are not contained in another set.

## Definition

Let $A$ and $B$ denote sets. The *difference* between $A$ and $B$ is the set $\{x \in A \mid x \notin B\}$. In other words, the difference between $A$ and $B$ is the set of all points of $A$ which do not belong to $B$.

It is not necessary that $B \subset A$; the difference is called *proper* if $A \supset B$. This terminology is from that of proper subsets.

### Notation

We denote the difference between $A$ and $B$ by $A - B$.

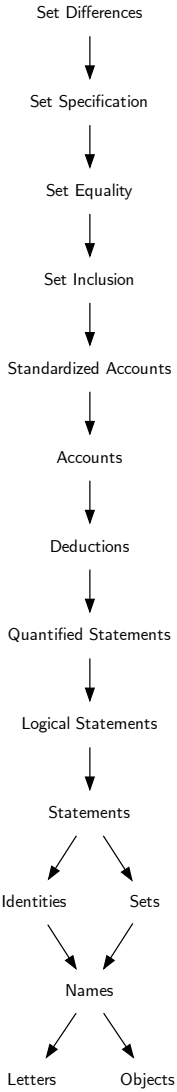
## Properties

The following are straightforward.[1]

**Proposition 1.** $A - \varnothing = A$

**Proposition 2.** $A - A = \varnothing$

[1] Accounts will appear in future editions.


Set Differences
Set Specification
Set Equality
Set Inclusion
Standardized Accounts
Accounts
Deductions
Quantified Statements
Logical Statements
Statements
Identities
Sets
Names
Letters
Objects