Why

We speak of a *set* and a subset of its power set which satisfies certain properties. The utility of this abstract concept is proved by its examples, in future sheets.

Definition

A *subset system* is a a pair of sets: the second set contains subsets of the first.

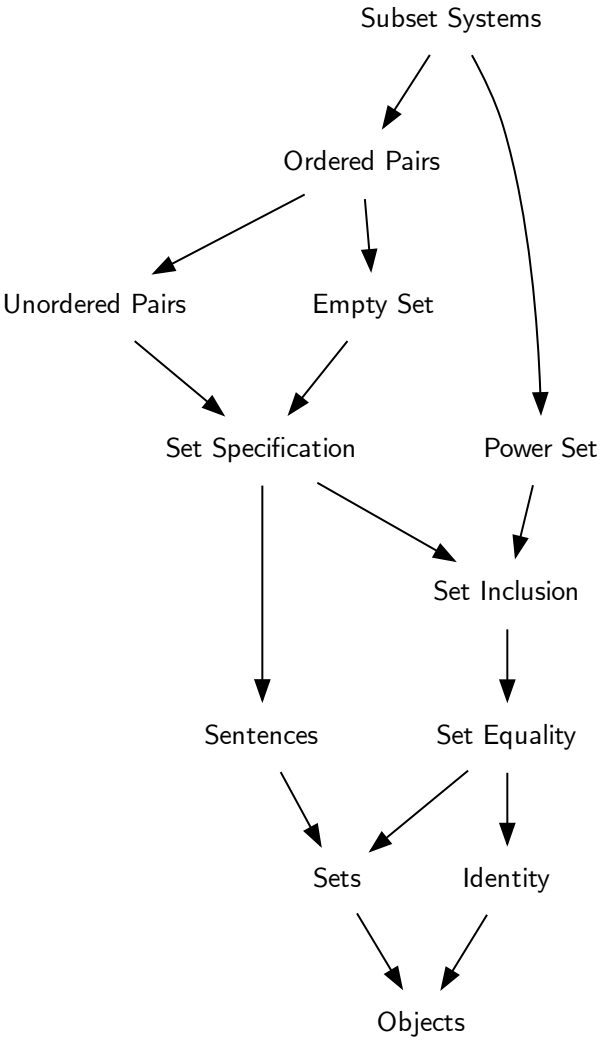
We call the first *set*set the *base set*. We call elements of the second set *distinguished subsets*. An *undistingished subset* is a subset of the first set which is not *distinguished*.

Notation

Let A be a set and $\mathcal{A} \subset A^*$. We denote the subset system of A and $\mathcal{A}$ by $(A, \mathcal{A})$, read aloud as "A, script A."

Example

Example 1. *Let A be a nonempty set. Let $\mathcal{A}$ be A^*. Then $(A, \mathcal{A})$ is a subset system.*


Subset Systems
Ordered Pairs
Unordered Pairs
Empty Set
Set Specification
Power Set
Set Inclusion
Sentences
Set Equality
Sets
Identity
Objects