



SUBSET SYSTEMS

Why

We are often interested in a set of subsets of a given set.

Definition

Let A be a non-empty set. A *subset system* is a pair (A, \mathcal{A}) in which $\mathcal{A} \subset \mathcal{P}(A)$. In this common case we call the first set the *base set* and the second set the *distinguished subsets*. A subset of $B \subset A$ which is not *distinguished* (i.e., $B \notin \mathcal{A}$) is called *undistinguished*.

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

