$$\diamondplus$$

Natural Families

1   Why

It is extremely common to use the first so many natural numbers as an index set.

2   Definition

A *natural family* of sets is a indexedkj family of sets whose index set is an subset of the natural numbers smaller than or equal to some specified natural number.

2.1   Notation

Let n be a natural number. Let A be a non-empty set. Let $a : \{1, \ldots, n\} \to A^*$ We often denote the family of a by $A_1, \ldots, A_n$. We often say, "let $A_1, \ldots, A_n$ be sets," without any reference to the fact that

Natural Families

Families

Functions

Power Set   Relations

Ordered Pairs   N

Unordered Pairs   Empty Set

Set Specification

2   Set Inclusion

Set Equality   Sentences