



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 indexed 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 $a : \{1, \dots, n\} \rightarrow A^*$. We often denote the family of a by A_1, \dots, A_n . We often say, "let A_1, \dots, A_n be sets," without any reference to the fact that we are thinking of a family.