$\bigoplus$ Finite Sets

1   Why

2   Definition

We want to talk about the size of a set. A *finite* set is one that is equivalent to some natural number; an infinite set is one which is not finite.

Proposition 1. *A set can be equivalent to at most one natural number.*

The *number* of a finite set is the unique natural number equivalent to it. We also call this the *size* of the set.

2.1   Notation

We denote the number of a set by $|A|$.

3   Properties

Proposition 2. $A \subset B \implies |a| \leq |B|$

Finite

Equivale

Function

Function Composites   Injective F

Equivalence Relations   Funct

Relat

Ordere