

1 Infinity

Definition 1.1. Let A be a class and a be an object and f be a map such that $A \subseteq \text{dom}(f)$. A is inductive regarding a and f iff $a \in A$ and for all $x \in A$ we have $f(x) \in A$.

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Axiom 1.2 (Infinity Axiom). Let A be a class and $a \in A$ and $f : A \rightarrow A$. Then there exists a subset of A that is inductive regarding a and f .