
Set theory
An introduction to axiomatic reasoning
- Errata page -

On page 12 (middle): “We now examine more closely Axioms A2, A9 and the Axiom of Choice, in random order.” should read:

“We now examine more closely Axioms A2 through A9 and the Axiom of Choice, in random order.”

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Proof of Theorem 2.4 is lacking. It should read as follows:

Let C be the class $C = \{x : x \notin x\}$.

By Axiom A2, the class C is well defined. Suppose C is an element. Either C belongs to C or it does not. Assume it does not. Since C is an element and does not belong to itself, it follows that C belongs to $\{x : x \notin x\}$, so C belongs to C . Contradiction. A similar contradiction arises if we assume C does belong to C , since we can then derive that C does not belong to C . Because assuming C is an element results in a contradiction, C is not an element, as required.

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On page 18, top, “By Theorem 2.1, ”every element is equal to itself”.

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On page 18, toward the bottom:

Axioms referring to classes also apply to sets and elements, since every element or set is a class. For example, Axiom A1 “If a, x, y are elements, $[x = y] \Leftrightarrow [a \in y \Leftrightarrow a \in x]$.”

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