

Exercises

E3.85 [2BZ] Prerequisites: [2BX]. Consider the Zermelo-Fraenkel set theory, and this statement:

Given any A, B non-empty sets such that there exists a surjective function $g : B \rightarrow A$, then there exists an injective function $f : A \rightarrow B$ such that $g \circ f = Id_A$.

Prove that this statement implies the Axiom of Choice.

Solution 1. [2C0]