Tarski's axiom

Canonical name	TarskisAxiom
Date of creation	2013-03-22 15:37:25
Last modified on	2013-03-22 15:37:25
Owner	rspuzio (6075)
Last modified by	rspuzio (6075)
Numerical id	5
Author	rspuzio (6075)
Entry type	Definition
Classification	msc 03E30

Tarski proposed the following axiom for set theory:

For every set S, there exists a set U which enjoys the following properties:

- S is an element of U

- For every element $X \in U$, every subset of X is also an element of U.

- For every element $X \in U$, the power set of X is also an element of U.

- Every subset of U whose cardinality is less than the cardinality of U is an element of U.

This axiom implies the axiom of choice. It also implies the existence of inaccessible cardinal numbers.