

Refutation of Tarski-Grothendieck set theory

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From: en.wikipedia.org/wiki/Tarski-Grothendieck_set_theory

$$\text{Axiom: } \forall x \exists y [x \in y \wedge \forall z \in y (P(z) \subseteq y \wedge P(z) \in y) \wedge \forall z \in P(y) ((\neg z \approx y) \rightarrow z \in y)] \quad (1.1)$$

We assume the Meth8/VL4 apparatus and method.

LET p q r s: x, y, z, P.

necessity, for all; % possibility, for one or some;

> Imply, greater than; < Not Imply, less than, ∈ = Equivalent to, ≈

$$(\#p \& \%q) \& ((p < q) \& ((\#r < q) \& ((\sim((s \& r) > q) \& ((s \& r) > q)) \& ((\#r < (s \& q)) \& ((\sim r = q) > (r < q))))));$$

FFFF FFFF FFFF FFFF (1.2)

Remark: The consequent in Eq. 1.2 has the same table result as Eq. 1.2. Therefore the quantifier as the antecedent has no affect on the result.

Eq. 1.2 as rendered is *not* tautologous. This means the axiom of Tarski-Grothendieck set theory in Eq. 1.1 is refuted.