

t28_subset_1 (TMT-
PQGSCv7h8rHD8PgLy11djE5PSSr6yUSQ)

October 27, 2020

Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. \neg (X0 \in X1) \wedge (v1_xboole_0 X1) \quad (1)$$

Assume the following.

$$\forall X0. \neg v1_xboole_0 (k1_zfmisc_1 X0) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (r1_tarski X0 X1) \Leftrightarrow (\forall X2. (X2 \in X0) \Rightarrow (X2 \in X1)) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. (X1 = k1_zfmisc_1 X0) \Leftrightarrow (\forall X2. (X2 \in X1) \Leftrightarrow (r1_tarski X2 X0)) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. ((\neg v1_xboole_0 X0) \Rightarrow ((m1_subset_1 X1 X0) \Leftrightarrow (X1 \in X0))) \wedge ((v1_xboole_0 X0) \Rightarrow ((m1_subset_1 X1 X0) \Leftrightarrow (v1_xboole_0 X1))) \quad (5)$$

Assume the following.

$$\forall X0. \forall X1. (X0 = X1) \Leftrightarrow ((r1_tarski X0 X1) \wedge (r1_tarski X1 X0)) \quad (6)$$

Theorem 1

$$\forall X0. \forall X1. (m1_subset_1 X1 (k1_zfmisc_1 X0)) \Rightarrow ((\forall X2. (m1_subset_1 X2 X0) \Rightarrow (X2 \in X1)) \Rightarrow (X0 = X1))$$