

t9_member_1
(TMTB3eS1LhpXShNXkdEXSjEAUBAibPtsaQ4)

October 27, 2020

Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $k4_member_1 : \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $k2_xreal_3 : \iota \Rightarrow \iota$ be given. Let $k2_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2_membered : \iota \Rightarrow o$ be given. Let $k4_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Assume the following.

$$\forall X0. k2_tarski X0 X0 = k1_tarski X0 \quad (1)$$

Assume the following.

$$\forall X0. (v2_membered X0) \Rightarrow (\forall X1. (v1_xreal_0 X1) \Rightarrow ((X1 \in X0) \Leftrightarrow (k2_xreal_3 X1 \in k4_member_1 X0))) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (\neg X0 \in X1) \Rightarrow (k4_xboole_0 (k2_xboole_0 X1 (k1_tarski X0)) (k1_tarski X0) = X1) \quad (3)$$

Assume the following.

$$\forall X0. (v2_membered X0) \Rightarrow (\forall X1. (v2_membered X1) \Rightarrow ((r1_tarski X0 X1) \Rightarrow (r1_tarski (k4_member_1 X0) (k4_member_1 X1)))) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. (r1_tarski X0 (k1_tarski X1)) \Leftrightarrow ((X0 = k1_xboole_0) \vee (X0 = k1_tarski X1)) \quad (5)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (r1_tarski X0 (k2_tarski X1 X2)) \Leftrightarrow (\neg (X0 \neq k1_xboole_0) \wedge ((X0 \neq k1_tarski X1) \wedge ((X0 \neq k1_tarski X2) \wedge (X0 \neq k2_tarski X1 X2)))) \quad (6)$$

Assume the following.

$$\forall X0. \forall X1. (r1_tarski (k1_tarski X0) X1) \Leftrightarrow (X0 \in X1) \quad (7)$$

Assume the following.

$$\forall X0.(v2_membered\ X0) \Rightarrow (k4_member_1\ (k4_member_1\ X0) = X0) \quad (8)$$

Assume the following.

$$\forall X0.(v1_xxreal_0\ X0) \Rightarrow (k2_xxreal_3\ (k2_xxreal_3\ X0) = X0) \quad (9)$$

Assume the following.

$$\forall X0.(v1_xxreal_0\ X0) \Rightarrow (v2_membered\ (k1_tarSKI\ X0)) \quad (10)$$

Assume the following.

$$\forall X0.(v2_membered\ X0) \Rightarrow (v2_membered\ (k4_member_1\ X0)) \quad (11)$$

Assume the following.

$$\forall X0.(v1_xxreal_0\ X0) \Rightarrow (v1_xxreal_0\ (k2_xxreal_3\ X0)) \quad (12)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(X2 = k4_xboole_0\ X0\ X1) \Leftrightarrow (\forall X3. (X3 \in X2) \Leftrightarrow ((X3 \in X0) \wedge (\neg X3 \in X1))) \quad (13)$$

Assume the following.

$$\forall X0.\forall X1.(r1_tarSKI\ X0\ X1) \Leftrightarrow (\forall X2.(X2 \in X0) \Rightarrow (X2 \in X1)) \quad (14)$$

Assume the following.

$$\forall X0.\forall X1.(X1 = k1_tarSKI\ X0) \Leftrightarrow (\forall X2.(X2 \in X1) \Leftrightarrow (X2 = X0)) \quad (15)$$

Theorem 1

$$\forall X0.(v1_xxreal_0\ X0) \Rightarrow (k4_member_1\ (k1_tarSKI\ X0) = k1_tarSKI\ (k2_xxreal_3\ X0))$$