

t54_xxreal_2

(TMT3Jt7MwZAmhguqt8zdsUp7KQKP3pPKLZR)

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Let $v2_membered : \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m2_xxreal_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_xxreal_0 : \iota$ be given. Let $v3_xxreal_2 : \iota \Rightarrow o$ be given. Let $k1_xxreal_0 : \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $k2_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v2_membered X0) \Rightarrow ((m2_xxreal_2 k1_xxreal_0 X0) \Rightarrow (r1_tarski X0 (k1_tarski k1_xxreal_0))) \quad (1)$$

Assume the following.

$$v3_xxreal_2 (k1_tarski k1_xxreal_0) \quad (2)$$

Assume the following.

$$\forall X0.(v2_membered X0) \Rightarrow (\forall X1.(v2_membered X1) \Rightarrow ((r1_tarski X0 X1) \wedge (v3_xxreal_2 X1)) \Rightarrow (v3_xxreal_2 X0)) \quad (3)$$

Assume the following.

$$\forall X0.k2_tarski X0 X0 = k1_tarski X0 \quad (4)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (\neg(\neg X0 \in k1_numbers) \wedge ((X0 \neq k1_xxreal_0) \wedge (X0 \neq k2_xxreal_0))) \quad (5)$$

Assume the following.

$$\forall X0.(v1_xxreal_0 X0) \Rightarrow (v2_membered (k1_tarski X0)) \quad (6)$$

Assume the following.

$$\forall X0.(v2_membered X0) \Rightarrow (\forall X1.(m2_xxreal_2 X1 X0) \Rightarrow (v1_xxreal_0 X1)) \quad (7)$$

Assume the following.

$$\forall X0.(v2_membered\ X0) \Rightarrow ((v3_xxreal_2\ X0) \Leftrightarrow (\exists X1.(v1_xreal_0\ X1) \wedge (m2_xxreal_2\ X1\ X0))) \quad (8)$$

Assume the following.

$$k1_xxreal_0 = k1_numbers \quad (9)$$

Assume the following.

$$\forall X0.(v1_xreal_0\ X0) \Leftrightarrow (X0 \in k1_numbers) \quad (10)$$

Theorem 1

$$\forall X0.((v2_membered\ X0) \wedge (\neg v1_xboole_0\ X0)) \Rightarrow ((\neg \forall X1.(m2_xxreal_2\ X1\ X0) \Rightarrow (X1 = k2_xxreal_0)) \Rightarrow (v3_xxreal_2\ X0))$$