

t49_xxreal_2
(TMUqq6Khhka2gd7rWsCxSeuHc6vrdReq9yE)

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Let $v2_membered : \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v4_xxreal_2 : \iota \Rightarrow o$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $k2_xxreal_0 : \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_xxreal_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. (\neg v1_xboole_0 X0) \Rightarrow (\forall X1. \neg (X0 \neq k1_tarski X1) \wedge (\forall X2. (m1_subset_1 X2 X0) \Rightarrow (X2 = X1))) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X0 X1) \Rightarrow ((v1_xboole_0 X1) \vee (X0 \in X1)) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (X0 \in X1) \Rightarrow (m1_subset_1 X0 X1) \quad (3)$$

Assume the following.

$$\forall X0. (v1_xxreal_0 X0) \Rightarrow (\forall X1. (v1_xxreal_0 X1) \Rightarrow (\neg (X0 \in k1_numbers) \wedge ((r1_xxreal_0 X1 X0) \wedge ((\neg X1 \in k1_numbers) \wedge (X1 \neq k2_xxreal_0)))))) \quad (4)$$

Assume the following.

$$\forall X0. (v2_membered X0) \Rightarrow (\forall X1. (v1_xxreal_0 X1) \Rightarrow ((m1_xxreal_2 X1 X0) \Leftrightarrow (\forall X2. (v1_xxreal_0 X2) \Rightarrow ((X2 \in X0) \Rightarrow (r1_xxreal_0 X2 X1))))) \quad (5)$$

Assume the following.

$$\forall X0. (v1_xreal_0 X0) \Leftrightarrow (X0 \in k1_numbers) \quad (6)$$

Assume the following.

$$\forall X0.(v2_membered\ X0)\Rightarrow((v4_xxreal_2\ X0)\Leftrightarrow(\exists X1.(v1_xreal_0\ X1)\wedge(m1_xxreal_2\ X1\ X0))) \quad (7)$$

Assume the following.

$$\forall X0.(v1_xreal_0\ X0)\Rightarrow(v1_xxreal_0\ X0) \quad (8)$$

Assume the following.

$$\forall X0.(v2_membered\ X0)\Rightarrow(\forall X1.(m1_subset_1\ X1\ X0)\Rightarrow(v1_xxreal_0\ X1)) \quad (9)$$

Theorem 1

$$\forall X0.((v2_membered\ X0)\wedge((\neg v1_xboole_0\ X0)\wedge(v4_xxreal_2\ X0)))\Rightarrow(\neg(X0\neq k1_tarski\ k2_xxreal_0)\wedge(\forall X1.(m1_subset_1\ X1\ k1_numbers)\Rightarrow(\neg X1\in X0)))$$