

t3_topreal9 (TMcyajBZSuEep- vwN6NBTCJGxLFk5hPLyHLn)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k15_euclid : \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k3_rlvect_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k22_euclid : \iota \Rightarrow \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k16_euclid : \iota \Rightarrow \iota$ be given. Let $k4_struct_0 : \iota \Rightarrow \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v6_membered : \iota \Rightarrow o$ be given. Let $l2_algstr_0 : \iota \Rightarrow o$ be given. Let $l2_struct_0 : \iota \Rightarrow o$ be given. Let $l1_algstr_0 : \iota \Rightarrow o$ be given. Let $l1_rlvect_1 : \iota \Rightarrow o$ be given. Let $l1_rltopsp1 : \iota \Rightarrow o$ be given. Let $l1_pre_topc : \iota \Rightarrow o$ be given. Let $v5_rltopsp1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (k16_euclid X0 = k4_struct_0 (k15_euclid X0)) \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\ X1 (u1_struct_0 (k15_euclid X0))) \Rightarrow (\forall X2.(m1_subset_1 X2 \\ (u1_struct_0 (k15_euclid X0))) \Rightarrow (\forall X3.(m1_subset_1 X3 (\\ u1_struct_0 (k15_euclid X0))) \Rightarrow ((k3_rlvect_1 (k15_euclid X0) \\ X1 X2 = k3_rlvect_1 (k15_euclid X0) X1 X3) \Rightarrow (X2 = X3)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 \\ (k15_euclid X0))) \Rightarrow ((k3_rlvect_1 (k15_euclid X0) (k4_struct_0 \\ (k15_euclid X0)) X1 = X1) \wedge (k3_rlvect_1 (k15_euclid X0) X1 (k4_struct_0 \\ (k15_euclid X0)) = X1))) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0.((\neg v1_xboole_0 X0) \wedge (v7_ordinal1 X0)) \Rightarrow (k16_euclid X0 \neq k22_euclid X0) \quad (4)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (5)$$

Assume the following.

$$v6_membered\ k4_ordinal1 \quad (6)$$

Assume the following.

$$\forall X0.(l2_algstr_0\ X0) \Rightarrow ((l2_struct_0\ X0) \wedge (l1_algstr_0\ X0)) \quad (7)$$

Assume the following.

$$\forall X0.(l1_rlvect_1\ X0) \Rightarrow (l2_algstr_0\ X0) \quad (8)$$

Assume the following.

$$\forall X0.(l1_rltopsp1\ X0) \Rightarrow ((l1_rlvect_1\ X0) \wedge (l1_pre_topc\ X0)) \quad (9)$$

Assume the following.

$$\forall X0.(l2_struct_0\ X0) \Rightarrow (m1_subset_1\ (k4_struct_0\ X0)\ (u1_struct_0\ X0)) \quad (10)$$

Assume the following.

$$\forall X0.(v7_ordinal1\ X0) \Rightarrow (m1_subset_1\ (k22_euclid\ X0)\ (u1_struct_0\ (k15_euclid\ X0))) \quad (11)$$

Assume the following.

$$\forall X0.(v7_ordinal1\ X0) \Rightarrow ((v5_rltopsp1\ (k15_euclid\ X0)) \wedge (l1_rltopsp1\ (k15_euclid\ X0))) \quad (12)$$

Assume the following.

$$\forall X0.(v6_membered\ X0) \Rightarrow (\forall X1.(m1_subset_1\ X1\ X0) \Rightarrow (v7_ordinal1\ X1)) \quad (13)$$

Theorem 1

$$\forall X0.(m1_subset_1\ X0\ k5_numbers) \Rightarrow (\forall X1.(m1_subset_1\ X1\ (u1_struct_0\ (k15_euclid\ X0))) \Rightarrow (\neg(\neg v1_xboole_0\ X0) \wedge (X1 = k3_rlvect_1\ (k15_euclid\ X0)\ X1\ (k22_euclid\ X0))))$$