

l27_topreal4

(TMK7RHzL2vFUtNxtknvHpjd4oWvG7TCgcMG)

October 27, 2020

Let $k3_pcomps_1 : \iota \Rightarrow \iota$ be given. Let $k14_euclid : \iota \Rightarrow \iota$ be given. Let $np_2 : \iota$ be given. Let $g1_pre_topc : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k15_euclid : \iota \Rightarrow \iota$ be given. Let $u1_pre_topc : \iota \Rightarrow \iota$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k5_numbers : \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $v5_rltopsp1 : \iota \Rightarrow o$ be given. Let $l1_rltopsp1 : \iota \Rightarrow o$ be given. Let $g1_rlvect_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u2_struct_0 : \iota \Rightarrow \iota$ be given. Let $u1_algstr_0 : \iota \Rightarrow \iota$ be given. Let $u1_rlvect_1 : \iota \Rightarrow \iota$ be given. Let $k10_funcsdom : \iota \Rightarrow \iota$ be given. Let $k2_finseq_1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & ((v2_xxreal_0 \ np_2) \wedge (m2_subset_1 \ np_2 \ k1_numbers \ k5_numbers)) \wedge \\ & ((m1_subset_1 \ np_2 \ k5_numbers) \wedge (m1_subset_1 \ np_2 \ k1_numbers)) \end{aligned} \quad (1)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (2)$$

Assume the following.

$$\forall X0. (v7_ordinal1 \ X0) \Rightarrow ((v5_rltopsp1 \ (k15_euclid \ X0)) \wedge (l1_rltopsp1 \ (k15_euclid \ X0))) \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0. (v7_ordinal1 \ X0) \Rightarrow (\forall X1. ((v5_rltopsp1 \ X1) \wedge (\\ & l1_rltopsp1 \ X1)) \Rightarrow ((X1 = k15_euclid \ X0) \Leftrightarrow ((g1_pre_topc \ (u1_struct_0 \\ & X1) \ (u1_pre_topc \ X1) = k3_pcomps_1 \ (k14_euclid \ X0)) \wedge (g1_rlvect_1 \\ & (u1_struct_0 \ X1) \ (u2_struct_0 \ X1) \ (u1_algstr_0 \ X1) \ (u1_rlvect_1 \\ & X1) = k10_funcsdom \ (k2_finseq_1 \ X0)))))) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0. (m1_subset_1 \ X0 \ k4_ordinal1) \Rightarrow (v7_ordinal1 \ X0) \quad (5)$$

Theorem 1

$$k3_pcomps_1 \ (k14_euclid \ np_2) = g1_pre_topc \ (u1_struct_0 \ (k15_euclid \ np_2)) \ (u1_pre_topc \ (k15_euclid \ np_2))$$