

t32_topreala
 (TMN9qB3p5DGRSNhgYdbXx6bD8drAZby9G9x)

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Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $k1_topreala : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k19_euclid : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_jgraph_6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $np_2 : \iota$ 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 $v6_membered : \iota \Rightarrow o$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k15_euclid : \iota \Rightarrow \iota$ be given. Let $v5_rltopsp1 : \iota \Rightarrow o$ be given. Let $l1_pre_topc : \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k1_pre_topc : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_pre_topc : \iota \Rightarrow o$ be given. Let $l1_rltopsp1 : \iota \Rightarrow o$ be given. Let $l1_rlvect_1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. \neg (X0 \in X1) \wedge (v1_xboole_0 X1) \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. (v1_xreal_0 X0) \Rightarrow (\forall X1. (v1_xreal_0 X1) \Rightarrow (\forall X2. \\ & (v1_xreal_0 X2) \Rightarrow (\forall X3. (v1_xreal_0 X3) \Rightarrow (((r1_xxreal_0 \\ & X0 X1) \wedge (r1_xxreal_0 X2 X3)) \Rightarrow (k19_euclid X0 X2 \in k2_jgraph_6 X0 X1 \\ & X2 X3)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & ((v2_xxreal_0 np_2) \wedge (m2_subset_1 np_2 k1_numbers k5_numbers)) \wedge \\ & ((m1_subset_1 np_2 k5_numbers) \wedge (m1_subset_1 np_2 k1_numbers)) \end{aligned} \quad (3)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (4)$$

Assume the following.

$$v6_membered k4_ordinal1 \quad (5)$$

Assume the following.

$$\forall X0.(v7_ordinal1\ X0)\Rightarrow((\neg v2_struct_0\ (k15_euclid\ X0))\wedge (v5_rltopsp1\ (k15_euclid\ X0))) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.(((\neg v2_struct_0\ X0)\wedge(l1_pre_topc\ X0))\wedge ((\neg v1_xboole_0\ X1)\wedge(m1_subset_1\ X1\ (k1_zfmisc_1\ (u1_struct_0\ X0))))))\Rightarrow((\neg v2_struct_0\ (k1_pre_topc\ X0\ X1))\wedge(v1_pre_topc\ (k1_pre_topc\ X0\ X1))) \quad (7)$$

Assume the following.

$$\forall X0.(l1_rltopsp1\ X0)\Rightarrow((l1_rlvect_1\ X0)\wedge(l1_pre_topc\ X0)) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.((v1_xreal_0\ X0)\wedge ((v1_xreal_0\ X1)\wedge((v1_xreal_0\ X2)\wedge(v1_xreal_0\ X3))))\Rightarrow(m1_subset_1\ (k2_jgraph_6\ X0\ X1\ X2\ X3)\ (k1_zfmisc_1\ (u1_struct_0\ (k15_euclid\ np_2)))) \quad (9)$$

Assume the following.

$$\forall X0.(v7_ordinal1\ X0)\Rightarrow((v5_rltopsp1\ (k15_euclid\ X0))\wedge (l1_rltopsp1\ (k15_euclid\ X0))) \quad (10)$$

Assume the following.

$$\forall X0.(v1_xreal_0\ X0)\Rightarrow(\forall X1.(v1_xreal_0\ X1)\Rightarrow(\forall X2.(v1_xreal_0\ X2)\Rightarrow(\forall X3.(v1_xreal_0\ X3)\Rightarrow(k1_topreala\ X0\ X1\ X2\ X3 = k1_pre_topc\ (k15_euclid\ np_2)\ (k2_jgraph_6\ X0\ X1\ X2\ X3)))))) \quad (11)$$

Assume the following.

$$\forall X0.(v6_membered\ X0)\Rightarrow(\forall X1.(m1_subset_1\ X1\ X0)\Rightarrow (v7_ordinal1\ X1)) \quad (12)$$

Theorem 1

$$\forall X0.(v1_xreal_0\ X0)\Rightarrow(\forall X1.(v1_xreal_0\ X1)\Rightarrow(\forall X2.(v1_xreal_0\ X2)\Rightarrow(\forall X3.(v1_xreal_0\ X3)\Rightarrow(\neg(r1_xxreal_0\ X0\ X1)\wedge((r1_xxreal_0\ X2\ X3)\wedge(v2_struct_0\ (k1_topreala\ X0\ X1\ X2\ X3)))))))$$