

t22_toprealb
(TMPcbXAzaUxfdwTku2eephH3p783KgB1yGd)

October 27, 2020

Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k8_toprealb : \iota \Rightarrow \iota$ be given. Let $np_2 : \iota$ be given. Let $k11_toprealb : \iota \Rightarrow \iota$ be given. Let $k1_pre_topc : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_struct_0 : \iota \Rightarrow \iota$ be given. Let $k6_domain_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ 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 $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k6_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v6_membered : \iota \Rightarrow o$ be given. Let $l1_pre_topc : \iota \Rightarrow o$ be given. Let $m1_pre_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l1_rltopsp1 : \iota \Rightarrow o$ be given. Let $l1_rlvect_1 : \iota \Rightarrow o$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ 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 $v1_pre_topc : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.k4_xboole_0 X0 k1_xboole_0 = X0 \quad (1)$$

Assume the following.

$$\begin{aligned} & ((v2_xxreal_0 np_2) \wedge (m2_subset_1 np_2 k1_numbers k5_numbers)) \wedge \\ & ((m1_subset_1 np_2 k5_numbers) \wedge (m1_subset_1 np_2 k1_numbers)) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1_subset_1 X1 (k1_zfmisc_1 X0)) \Rightarrow (k7_subset_1 X0 X1 X2 = k4_xboole_0 X1 X2) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.k6_subset_1 X0 X1 = k4_xboole_0 X0 X1 \quad (4)$$

Assume the following.

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

Assume the following.

$$v6_membered k4_ordinal1 \quad (6)$$

Assume the following.

$$\forall X0.(l1_pre_topc\ X0)\Rightarrow(\forall X1.(m1_pre_topc\ X1\ X0)\Rightarrow(l1_pre_topc\ X1)) \quad (7)$$

Assume the following.

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

Assume the following.

$$\forall X0.(l1_pre_topc\ X0)\Rightarrow(l1_struct_0\ X0) \quad (9)$$

Assume the following.

$$\forall X0.(v7_ordinal1\ X0)\Rightarrow(m1_pre_topc\ (k8_toprealb\ X0)\ (k15_euclid\ X0)) \quad (10)$$

Assume the following.

$$\forall X0.\forall X1.m1_subset_1\ (k6_subset_1\ X0\ X1)\ (k1_zfmisc_1\ X0) \quad (11)$$

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.

$$\forall X0.(m1_subset_1\ X0\ (u1_struct_0\ (k8_toprealb\ np_2)))\Rightarrow((v1_pre_topc\ (k11_toprealb\ X0))\wedge(m1_pre_topc\ (k11_toprealb\ X0)\ (k8_toprealb\ np_2))) \quad (13)$$

Assume the following.

$$\forall X0.(l1_pre_topc\ X0)\Rightarrow(\forall X1.(m1_subset_1\ X1\ (k1_zfmisc_1\ (u1_struct_0\ X0)))\Rightarrow(\forall X2.((v1_pre_topc\ X2)\wedge(m1_pre_topc\ X2\ X0))\Rightarrow((X2 = k1_pre_topc\ X0\ X1)\Leftrightarrow(k2_struct_0\ X2 = X1)))) \quad (14)$$

Assume the following.

$$\forall X0.(l1_struct_0\ X0)\Rightarrow(k2_struct_0\ X0 = u1_struct_0\ X0) \quad (15)$$

Assume the following.

$$\forall X0.(m1_subset_1\ X0\ (u1_struct_0\ (k8_toprealb\ np_2)))\Rightarrow(\forall X1.((v1_pre_topc\ X1)\wedge(m1_pre_topc\ X1\ (k8_toprealb\ np_2)))\Rightarrow((X1 = k11_toprealb\ X0)\Leftrightarrow(u1_struct_0\ X1 = k6_subset_1\ (u1_struct_0\ (k8_toprealb\ np_2))\ (k6_domain_1\ (u1_struct_0\ (k8_toprealb\ np_2))\ X0)))) \quad (16)$$

Assume the following.

$$\forall X0.(v6_membered\ X0)\Rightarrow(\forall X1.(m1_subset_1\ X1\ X0)\Rightarrow(v7_ordinal1\ X1)) \quad (17)$$

Theorem 1

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 (u1_struct_0 (k8_toprealb np_2))) \Rightarrow \\ & (k11_toprealb X0 = k1_pre_topc (k8_toprealb np_2) (k7_subset_1 \\ & (u1_struct_0 (k8_toprealb np_2)) (k2_struct_0 (k8_toprealb \\ & np_2)) (k6_domain_1 (u1_struct_0 (k8_toprealb np_2)) X0))) \end{aligned}$$