

l34_toprns_1

(TMV9CMeNDCqVBFuVmUtGvNeWpw8a5tSE1Ja)

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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 $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k15_euclid : \iota \Rightarrow \iota$ be given. Let $k12_euclid : \iota \Rightarrow \iota$ be given. Let $k5_algstr_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k4_struct_0 : \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $l1_rlvect_1 : \iota \Rightarrow o$ be given. Let $l2_algstr_0 : \iota \Rightarrow o$ 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.

$$\begin{aligned} \forall X0.(v7_ordinal1\ X0) \Rightarrow (\forall X1.(m1_subset_1\ X1\ (u1_struct_0 \\ (k15_euclid\ X0))) \Rightarrow (\forall X2.(m1_subset_1\ X2\ (u1_struct_0\ (\\ k15_euclid\ X0))) \Rightarrow ((k5_algstr_0\ (k15_euclid\ X0)\ X1\ X2 = k4_struct_0 \\ (k15_euclid\ X0)) \Rightarrow (X1 = X2)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.(m2_subset_1\ X0\ k1_numbers\ k5_numbers) \Rightarrow (\forall X1. \\ (m1_subset_1\ X1\ (u1_struct_0\ (k15_euclid\ X0))) \Rightarrow ((k12_euclid \\ X1 = k6_numbers) \Rightarrow (X1 = k4_struct_0\ (k15_euclid\ X0)))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.((\neg v1_xboole_0\ X0) \wedge ((\neg v1_xboole_0\ X1) \wedge \\ (m1_subset_1\ X1\ (k1_zfmisc_1\ X0)))) \Rightarrow (\forall X2.(m2_subset_1 \\ X2\ X0\ X1) \Leftrightarrow (m1_subset_1\ X2\ X1)) \end{aligned} \quad (3)$$

Assume the following.

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

Assume the following.

$$(\neg v1_xboole_0\ k4_ordinal1) \wedge (v3_ordinal1\ k4_ordinal1) \quad (5)$$

Assume the following.

$$\neg v1_xboole_0 \ k1_numbers \quad (6)$$

Assume the following.

$$\forall X0.(l1_rlvect_1 \ X0) \Rightarrow (l2_algstr_0 \ X0) \quad (7)$$

Assume the following.

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

Assume the following.

$$m1_subset_1 \ k5_numbers \ (k1_zfmisc_1 \ k1_numbers) \quad (9)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. ((l2_algstr_0 \ X0) \wedge ((m1_subset_1 \\ & X1 \ (u1_struct_0 \ X0)) \wedge (m1_subset_1 \ X2 \ (u1_struct_0 \ X0)))) \Rightarrow (m1_subset_1 \\ & (k5_algstr_0 \ X0 \ X1 \ X2) \ (u1_struct_0 \ X0)) \end{aligned} \quad (10)$$

Assume the following.

$$\forall X0.(v7_ordinal1 \ X0) \Rightarrow ((v5_rltopsp1 \ (k15_euclid \ X0)) \wedge (l1_rltopsp1 \ (k15_euclid \ X0))) \quad (11)$$

Assume the following.

$$\forall X0.(m1_subset_1 \ X0 \ k4_ordinal1) \Rightarrow (v7_ordinal1 \ X0) \quad (12)$$

Theorem 1

$$\begin{aligned} & \forall X0.(m2_subset_1 \ X0 \ k1_numbers \ k5_numbers) \Rightarrow (\forall X1. \\ & (m1_subset_1 \ X1 \ (u1_struct_0 \ (k15_euclid \ X0))) \Rightarrow (\forall X2.(\\ & m1_subset_1 \ X2 \ (u1_struct_0 \ (k15_euclid \ X0))) \Rightarrow ((k12_euclid \ (\\ & k5_algstr_0 \ (k15_euclid \ X0) \ X1 \ X2) = k6_numbers) \Rightarrow (X1 = X2)))) \end{aligned}$$