

t41_gobrd14 (TMGMMZBE- JhKKXxwGEV9YuKEaGSBw4X9YKrV)

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Let $v3_funct.1 : \iota \Rightarrow o$ be given. Let $v1_xboole.0 : \iota \Rightarrow o$ be given. Let $v1_finseq.6 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct.0 : \iota \Rightarrow \iota$ be given. Let $k15_euclid : \iota \Rightarrow \iota$ be given. Let $np_2 : \iota$ be given. Let $v1_topreal1 : \iota \Rightarrow o$ be given. Let $v2_topreal1 : \iota \Rightarrow o$ be given. Let $v1_goboard5 : \iota \Rightarrow o$ be given. Let $v2_goboard5 : \iota \Rightarrow o$ be given. Let $v1_sprect.2 : \iota \Rightarrow o$ be given. Let $m2_finseq.1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_pscomp.1 : \iota \Rightarrow \iota$ be given. Let $k3_topreal1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_goboard9 : \iota \Rightarrow \iota$ be given. Let $m1_subset.1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc.1 : \iota \Rightarrow \iota$ be given. Let $v9_rltopsp1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_pre_topc : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_seq.4 : \iota \Rightarrow \iota$ be given. Let $k7_relset.1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_numbers : \iota$ be given. Let $k4_pscomp.1 : \iota$ be given. Let $v2_struct.0 : \iota \Rightarrow o$ be given. Let $v2_pre_topc : \iota \Rightarrow o$ be given. Let $v13_algstr.0 : \iota \Rightarrow o$ be given. Let $v2_rlvect.1 : \iota \Rightarrow o$ be given. Let $v3_rlvect.1 : \iota \Rightarrow o$ be given. Let $v4_rlvect.1 : \iota \Rightarrow o$ be given. Let $v5_rlvect.1 : \iota \Rightarrow o$ be given. Let $v6_rlvect.1 : \iota \Rightarrow o$ be given. Let $v7_rlvect.1 : \iota \Rightarrow o$ be given. Let $v8_rlvect.1 : \iota \Rightarrow o$ be given. Let $v6_rltopsp1 : \iota \Rightarrow o$ be given. Let $v7_rltopsp1 : \iota \Rightarrow o$ be given. Let $l1_rltopsp1 : \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2_compts.1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l1_pre_topc : \iota \Rightarrow o$ 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 $k5_numbers : \iota$ be given. Let $m1_finseq.1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_zfmisc.1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_relat.1 : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $v5_rltopsp1 : \iota \Rightarrow o$ be given. Let $l1_struct.0 : \iota \Rightarrow o$ be given. Let $l1_rlvect.1 : \iota \Rightarrow o$ be given. Let $v1_funct.1 : \iota \Rightarrow o$ be given. Let $v1_funct.2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0. (& (\neg v1_xboole.0 X0) \wedge (m1_subset.1 X0 (k1_zfmisc.1 (\\ & u1_struct.0 (k15_euclid np_2)))))) \Rightarrow ((v9_rltopsp1 X0 (k15_euclid \\ & np_2)) \Rightarrow (k6_pscomp.1 X0 = k6_pscomp.1 (k2_pre_topc (k15_euclid \\ & np_2) X0))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0. (m1_subset.1 X0 (k1_zfmisc.1 (u1_struct.0 (k15_euclid \\ & np_2)))) \Rightarrow (k6_pscomp.1 X0 = k5_seq.4 (k7_relset.1 (u1_struct.0 \\ & (k15_euclid np_2)) k1_numbers k4_pscomp.1 X0)) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge ((v13_algstr_0 \\ & X0) \wedge ((v2_rlvect_1 X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge \\ & ((v5_rlvect_1 X0) \wedge ((v6_rlvect_1 X0) \wedge ((v7_rlvect_1 X0) \wedge ((v8_rlvect_1 \\ & X0) \wedge ((v6_rltopsp1 X0) \wedge ((v7_rltopsp1 X0) \wedge (l1_rltopsp1 X0)))))))))) \Rightarrow \\ & (\forall X1.((v9_rltopsp1 X1 X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 \\ & (u1_struct_0 X0)))) \Rightarrow (\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 \\ & (u1_struct_0 X0))) \Rightarrow (r1_tarski X2 X1) \Rightarrow (v9_rltopsp1 X2 X0))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v3_funct_1 X0) \wedge ((\neg v1_xboole_0 X0) \wedge ((v1_finseq_6 \\ & X0 (u1_struct_0 (k15_euclid np_2))) \wedge ((v1_topreal1 X0) \wedge ((v2_topreal1 \\ & X0) \wedge ((v1_goboard5 X0) \wedge ((v2_goboard5 X0) \wedge ((v1_sprect_2 X0) \wedge \\ & (m2_finseq_1 X0 (u1_struct_0 (k15_euclid np_2)))))))))) \Rightarrow (\\ & v2_compts_1 (k2_pre_topc (k15_euclid np_2) (k3_goboard9 X0)) \\ & (k15_euclid np_2)) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v3_funct_1 X0) \wedge ((\neg v1_xboole_0 X0) \wedge ((v1_finseq_6 \\ & X0 (u1_struct_0 (k15_euclid np_2))) \wedge ((v1_topreal1 X0) \wedge ((v2_topreal1 \\ & X0) \wedge ((v1_goboard5 X0) \wedge ((v2_goboard5 X0) \wedge ((v1_sprect_2 X0) \wedge \\ & (m2_finseq_1 X0 (u1_struct_0 (k15_euclid np_2)))))))))) \Rightarrow (\\ & k7_relset_1 (u1_struct_0 (k15_euclid np_2)) k1_numbers k4_pscomp_1 \\ & (k2_pre_topc (k15_euclid np_2) (k3_goboard9 X0)) = k7_relset_1 \\ & (u1_struct_0 (k15_euclid np_2)) k1_numbers k4_pscomp_1 (k3_topreal1 \\ & np_2 X0)) \end{aligned} \quad (5)$$

Assume the following.

$$\forall X0.(l1_pre_topc X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow (r1_tarski X1 (k2_pre_topc X0 X1))) \quad (6)$$

Assume the following.

$$\begin{aligned} & ((v2_xxreal_0 np_2) \wedge (m2_subset_1 np_2 k1_numbers k5_numbers)) \wedge \\ & ((m1_subset_1 np_2 k5_numbers) \wedge (m1_subset_1 np_2 k1_numbers)) \end{aligned} \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.(m2_finseq_1 X1 X0) \Leftrightarrow (m1_finseq_1 X1 X0) \quad (8)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.(m1_subset_1 X2 (\\ & k1_zfmisc_1 (k2_zfmisc_1 X0 X1))) \Rightarrow (k7_relset_1 X0 X1 X2 X3 = k7_relat_1 \\ & X2 X3) \end{aligned} \quad (9)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (10)$$

Assume the following.

$$v6_membered\ k4_ordinal1 \quad (11)$$

Assume the following.

$$\begin{aligned} \forall X0.(v7_ordinal1\ X0) \Rightarrow & ((v2_pre_topc\ (k15_euclid\ X0)) \wedge \\ & ((v13_algstr_0\ (k15_euclid\ X0)) \wedge (v2_rlvect_1\ (k15_euclid\ X0)) \wedge \\ & ((v3_rlvect_1\ (k15_euclid\ X0)) \wedge (v4_rlvect_1\ (k15_euclid\ X0)) \wedge \\ & ((v5_rlvect_1\ (k15_euclid\ X0)) \wedge (v6_rlvect_1\ (k15_euclid\ X0)) \wedge \\ & ((v7_rlvect_1\ (k15_euclid\ X0)) \wedge (v8_rlvect_1\ (k15_euclid\ X0)) \wedge \\ & (v5_rltopsp1\ (k15_euclid\ X0)))))) \end{aligned} \quad (12)$$

Assume the following.

$$\forall X0.((v2_struct_0\ X0) \wedge (l1_struct_0\ X0)) \Rightarrow (v1_xboole_0\ (u1_struct_0\ X0)) \quad (13)$$

Assume the following.

$$\forall X0.(v7_ordinal1\ X0) \Rightarrow ((v5_rltopsp1\ (k15_euclid\ X0)) \wedge (v6_rltopsp1\ (k15_euclid\ X0)) \wedge (v7_rltopsp1\ (k15_euclid\ X0))) \quad (14)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v1_xboole_0\ X0) \wedge (\neg v3_funct_1\ X0) \wedge ((v1_finseq_6 \\ X0\ (u1_struct_0\ (k15_euclid\ np_2))) \wedge ((v1_topreal1\ X0) \wedge ((v2_topreal1 \\ X0) \wedge ((v1_goboard5\ X0) \wedge ((v2_goboard5\ X0) \wedge (m1_finseq_1\ X0\ (u1_struct_0 \\ (k15_euclid\ np_2)))))))))) \Rightarrow (\neg v1_xboole_0\ (k3_goboard9\ X0)) \end{aligned} \quad (15)$$

Assume the following.

$$\forall X0.(l1_rltopsp1\ X0) \Rightarrow ((l1_rlvect_1\ X0) \wedge (l1_pre_topc\ X0)) \quad (16)$$

Assume the following.

$$\forall X0.(l1_pre_topc\ X0) \Rightarrow (l1_struct_0\ X0) \quad (17)$$

Assume the following.

$$\begin{aligned} (v1_funct_1\ k4_pscomp_1) \wedge ((v1_funct_2\ k4_pscomp_1\ (u1_struct_0 \\ (k15_euclid\ np_2))\ k1_numbers) \wedge (m1_subset_1\ k4_pscomp_1\ (k1_zfmisc_1 \\ (k2_zfmisc_1\ (u1_struct_0\ (k15_euclid\ np_2))\ k1_numbers)))) \end{aligned} \quad (18)$$

Assume the following.

$$\forall X0.\forall X1.((v7_ordinal1\ X0)\wedge(m1_finseq_1\ X1\ (u1_struct_0\ (k15_euclid\ X0))))\Rightarrow(m1_subset_1\ (k3_topreal1\ X0\ X1)\ (k1_zfmisc_1\ (u1_struct_0\ (k15_euclid\ X0)))) \quad (19)$$

Assume the following.

$$\forall X0.((\neg v1_xboole_0\ X0)\wedge((\neg v3_funct_1\ X0)\wedge((v1_finseq_6\ X0\ (u1_struct_0\ (k15_euclid\ np_2))))\wedge((v1_topreal1\ X0)\wedge((v2_topreal1\ X0)\wedge((v1_goboard5\ X0)\wedge((v2_goboard5\ X0)\wedge(m1_finseq_1\ X0\ (u1_struct_0\ (k15_euclid\ np_2))))))))))\Rightarrow(m1_subset_1\ (k3_goboard9\ X0)\ (k1_zfmisc_1\ (u1_struct_0\ (k15_euclid\ np_2)))) \quad (20)$$

Assume the following.

$$\forall X0.\forall X1.((l1_pre_topc\ X0)\wedge(m1_subset_1\ X1\ (k1_zfmisc_1\ (u1_struct_0\ X0))))\Rightarrow(m1_subset_1\ (k2_pre_topc\ X0\ X1)\ (k1_zfmisc_1\ (u1_struct_0\ X0))) \quad (21)$$

Assume the following.

$$\forall X0.(v7_ordinal1\ X0)\Rightarrow((v5_rltopsp1\ (k15_euclid\ X0))\wedge(l1_rltopsp1\ (k15_euclid\ X0))) \quad (22)$$

Assume the following.

$$\forall X0.(v1_xboole_0\ X0)\Rightarrow(\forall X1.(m1_subset_1\ X1\ (k1_zfmisc_1\ X0))\Rightarrow(v1_xboole_0\ X1)) \quad (23)$$

Assume the following.

$$\forall X0.(m1_subset_1\ X0\ k5_numbers)\Rightarrow(\forall X1.(m1_subset_1\ X1\ (k1_zfmisc_1\ (u1_struct_0\ (k15_euclid\ X0))))\Rightarrow((v2_compts_1\ X1\ (k15_euclid\ X0))\Rightarrow(v9_rltopsp1\ X1\ (k15_euclid\ X0)))) \quad (24)$$

Assume the following.

$$\forall X0.(v6_membered\ X0)\Rightarrow(\forall X1.(m1_subset_1\ X1\ X0)\Rightarrow(v7_ordinal1\ X1)) \quad (25)$$

Theorem 1

$$\forall X0.((\neg v3_funct_1\ X0)\wedge((\neg v1_xboole_0\ X0)\wedge((v1_finseq_6\ X0\ (u1_struct_0\ (k15_euclid\ np_2))))\wedge((v1_topreal1\ X0)\wedge((v2_topreal1\ X0)\wedge((v1_goboard5\ X0)\wedge((v2_goboard5\ X0)\wedge((v1_sprect_2\ X0)\wedge(m2_finseq_1\ X0\ (u1_struct_0\ (k15_euclid\ np_2))))))))))\Rightarrow(k6_pscomp_1\ (k3_topreal1\ np_2\ X0) = k6_pscomp_1\ (k3_goboard9\ X0))$$