

t29_topalg_4

(TMYFjNCn2ypihBL1Mf8fbcYHgfJruuCjfhv)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v2_pre_topc : \iota \Rightarrow o$ be given. Let $l1_pre_topc : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $v3_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k11_topalg_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_topalg_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_borsuk_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_borsuk_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_group_7 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $np_2 : \iota$ be given. Let $k10_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v2_funct_1 : \iota \Rightarrow o$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2_funct_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. \forall X2. \forall X3. (((\neg v2_struct_0 \\
& \quad X0) \wedge ((v2_pre_topc\ X0) \wedge (l1_pre_topc\ X0))) \wedge (((\neg v2_struct_0\ X1) \wedge \\
& \quad ((v2_pre_topc\ X1) \wedge (l1_pre_topc\ X1))) \wedge ((m1_subset_1\ X2\ (u1_struct_0 \\
& \quad X0)) \wedge (m1_subset_1\ X3\ (u1_struct_0\ X1)))))) \Rightarrow ((v1_funct_1\ (k11_topalg_4 \\
& \quad X0\ X1\ X2\ X3)) \wedge ((v2_funct_1\ (k11_topalg_4\ X0\ X1\ X2\ X3)) \wedge ((v1_funct_2 \\
& \quad (k11_topalg_4\ X0\ X1\ X2\ X3)\ (u1_struct_0\ (k5_topalg_1\ (k2_borsuk_1 \\
& \quad X0\ X1)\ (k4_borsuk_1\ X0\ X1\ X2\ X3)))\ (u1_struct_0\ (k2_group_7\ (k2_tarski \\
& \quad np_1\ np_2)\ (k10_finseq_1\ (k5_topalg_1\ X0\ X2)\ (k5_topalg_1\ X1 \\
& \quad X3)))))) \wedge (v2_funct_2\ (k11_topalg_4\ X0\ X1\ X2\ X3)\ (u1_struct_0\ (k2_group_7 \\
& \quad (k2_tarski\ np_1\ np_2)\ (k10_finseq_1\ (k5_topalg_1\ X0\ X2)\ (k5_topalg_1 \\
& \quad X1\ X3)))))))))
\end{aligned}
\tag{1}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. \forall X2. \forall X3. (((\neg v2_struct_0 \\
& X0) \wedge ((v2_pre_topc\ X0) \wedge (l1_pre_topc\ X0))) \wedge (((\neg v2_struct_0\ X1) \wedge \\
& ((v2_pre_topc\ X1) \wedge (l1_pre_topc\ X1))) \wedge ((m1_subset_1\ X2\ (u1_struct_0 \\
& X0)) \wedge (m1_subset_1\ X3\ (u1_struct_0\ X1)))) \Rightarrow ((v1_funct_1\ (k11_topalg_4 \\
& X0\ X1\ X2\ X3)) \wedge ((v1_funct_2\ (k11_topalg_4\ X0\ X1\ X2\ X3)\ (u1_struct_0 \\
& (k5_topalg_1\ (k2_borsuk_1\ X0\ X1)\ (k4_borsuk_1\ X0\ X1\ X2\ X3)))\ (u1_struct_0 \\
& (k2_group_7\ (k2_tarski\ np_1\ np_2)\ (k10_finseq_1\ (k5_topalg_1 \\
& X0\ X2)\ (k5_topalg_1\ X1\ X3)))))) \wedge (m1_subset_1\ (k11_topalg_4\ X0\ X1 \\
& X2\ X3)\ (k1_zfmisc_1\ (k2_zfmisc_1\ (u1_struct_0\ (k5_topalg_1\ (k2_borsuk_1 \\
& X0\ X1)\ (k4_borsuk_1\ X0\ X1\ X2\ X3)))\ (u1_struct_0\ (k2_group_7\ (k2_tarski \\
& np_1\ np_2)\ (k10_finseq_1\ (k5_topalg_1\ X0\ X2)\ (k5_topalg_1\ X1 \\
& X3))))))))) \\
& \tag{2}
\end{aligned}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. \forall X2. (m1_subset_1\ X2\ (k1_zfmisc_1 \\
& (k2_zfmisc_1\ X0\ X1))) \Rightarrow (((v1_funct_1\ X2) \wedge ((v2_funct_1\ X2) \wedge (v2_funct_2 \\
& X2\ X1))) \Rightarrow ((v1_funct_1\ X2) \wedge (v3_funct_2\ X2\ X0\ X1))) \\
& \tag{3}
\end{aligned}$$

Theorem 1

$$\begin{aligned}
& \forall X0. (((\neg v2_struct_0\ X0) \wedge ((v2_pre_topc\ X0) \wedge (l1_pre_topc \\
& X0))) \Rightarrow (\forall X1. ((\neg v2_struct_0\ X1) \wedge ((v2_pre_topc\ X1) \wedge (l1_pre_topc \\
& X1))) \Rightarrow (\forall X2. (m1_subset_1\ X2\ (u1_struct_0\ X0)) \Rightarrow (\forall X3. \\
& (m1_subset_1\ X3\ (u1_struct_0\ X1)) \Rightarrow (v3_funct_2\ (k11_topalg_4 \\
& X0\ X1\ X2\ X3)\ (u1_struct_0\ (k5_topalg_1\ (k2_borsuk_1\ X0\ X1)\ (k4_borsuk_1 \\
& X0\ X1\ X2\ X3)))\ (u1_struct_0\ (k2_group_7\ (k2_tarski\ np_1\ np_2) \\
& (k10_finseq_1\ (k5_topalg_1\ X0\ X2)\ (k5_topalg_1\ X1\ X3)))))))))
\end{aligned}$$