

t55_topalg_1 (TM-
PriX1GTeC9bttJBXyEYddG6mUb2Hfbw97)

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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 $m1_borsuk_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_borsuk_6 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_topalg_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_group_6 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r2_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_topalg_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v3_funct_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2_funct_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2_funct_1 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc \\ & X0))) \Rightarrow (\forall X1. (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. \\ & (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3. (m1_borsuk_2 X3 \\ & X0 X1 X2) \Rightarrow ((r1_borsuk_6 X0 X1 X2) \Rightarrow (v2_funct_2 (k6_topalg_1 X0 X1 \\ & X2 X3) (u1_struct_0 (k5_topalg_1 X0 X1))))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc \\ & X0))) \Rightarrow (\forall X1. (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. \\ & (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3. (m1_borsuk_2 X3 \\ & X0 X1 X2) \Rightarrow ((r1_borsuk_6 X0 X1 X2) \Rightarrow (v2_funct_1 (k6_topalg_1 X0 X1 \\ & X2 X3)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. (((v1_funct_1 X2) \wedge \\ & ((v1_funct_2 X2 X0 X1) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 \\ & X0 X1)))))) \wedge ((v1_funct_1 X3) \wedge ((v1_funct_2 X3 X0 X1) \wedge (m1_subset_1 \\ & X3 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))))) \Rightarrow ((r2_funct_2 X0 X1 X2 \\ & X3) \Leftrightarrow (X2 = X3)) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned}
& \forall X0.\forall X1.\forall X2.\forall X3.(((\neg v2_struct_0 \\
& X0)\wedge((v2_pre_topc\ X0)\wedge(l1_pre_topc\ X0))\wedge((m1_subset_1\ X1\ (\\
& u1_struct_0\ X0))\wedge((m1_subset_1\ X2\ (u1_struct_0\ X0))\wedge(m1_borsuk_2 \\
& X3\ X0\ X1\ X2))))\Rightarrow((v1_funct_1\ (k6_topalg_1\ X0\ X1\ X2\ X3))\wedge((v1_funct_2 \\
& (k6_topalg_1\ X0\ X1\ X2\ X3)\ (u1_struct_0\ (k5_topalg_1\ X0\ X2))\ (u1_struct_0 \\
& (k5_topalg_1\ X0\ X1)))\wedge(m1_subset_1\ (k6_topalg_1\ X0\ X1\ X2\ X3)\ (k1_zfmisc_1 \\
& (k2_zfmisc_1\ (u1_struct_0\ (k5_topalg_1\ X0\ X2))\ (u1_struct_0\ (\\
& k5_topalg_1\ X0\ X1))))))
\end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned}
& \forall X0.\forall X1.\forall X2.(m1_subset_1\ X2\ (k1_zfmisc_1 \\
& (k2_zfmisc_1\ X0\ X1)))\Rightarrow(((v1_funct_1\ X2)\wedge((v2_funct_1\ X2)\wedge(v2_funct_2 \\
& X2\ X1)))\Rightarrow((v1_funct_1\ X2)\wedge(v3_funct_2\ X2\ X0\ X1)))
\end{aligned} \tag{5}$$

Theorem 1

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0\ X0)\wedge((v2_pre_topc\ X0)\wedge(l1_pre_topc \\
& X0)))\Rightarrow(\forall X1.(m1_subset_1\ X1\ (u1_struct_0\ X0))\Rightarrow(\forall X2. \\
& (m1_subset_1\ X2\ (u1_struct_0\ X0))\Rightarrow(\forall X3.(m1_borsuk_2\ X3 \\
& X0\ X1\ X2)\Rightarrow((r1_borsuk_6\ X0\ X1\ X2)\Rightarrow(\forall X4.((v1_funct_1\ X4)\wedge \\
& ((v1_funct_2\ X4\ (u1_struct_0\ (k5_topalg_1\ X0\ X2))\ (u1_struct_0 \\
& (k5_topalg_1\ X0\ X1)))\wedge((v1_group_6\ X4\ (k5_topalg_1\ X0\ X2)\ (k5_topalg_1 \\
& X0\ X1))\wedge(m1_subset_1\ X4\ (k1_zfmisc_1\ (k2_zfmisc_1\ (u1_struct_0 \\
& (k5_topalg_1\ X0\ X2))\ (u1_struct_0\ (k5_topalg_1\ X0\ X1))))))\Rightarrow \\
& ((r2_funct_2\ (u1_struct_0\ (k5_topalg_1\ X0\ X2))\ (u1_struct_0\ (\\
& k5_topalg_1\ X0\ X1))\ X4\ (k6_topalg_1\ X0\ X1\ X2\ X3))\Rightarrow(v3_funct_2\ X4 \\
& (u1_struct_0\ (k5_topalg_1\ X0\ X2))\ (u1_struct_0\ (k5_topalg_1\ X0 \\
& X1))))))
\end{aligned}$$