

l3_topalg_2 (TMT- pxe8wp6izWXzDQ7AMAQwBJAygENbtoom)

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Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k2_borsuk_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_topmetr : \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k17_borsuk_1 : \iota$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v1_pre_topc : \iota \Rightarrow o$ be given. Let $v2_pre_topc : \iota \Rightarrow o$ be given. Let $l1_pre_topc : \iota \Rightarrow o$ be given. Let $u1_pre_topc : \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k5_setfam_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k8_mcart_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$k5_topmetr = k17_borsuk_1 \tag{1}$$

Assume the following.

$$(\neg v2_struct_0\ k17_borsuk_1) \wedge ((v1_pre_topc\ k17_borsuk_1) \wedge (v2_pre_topc\ k17_borsuk_1)) \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((v2_pre_topc\ X0) \wedge (l1_pre_topc\ X0)) \wedge \\ & ((v2_pre_topc\ X1) \wedge (l1_pre_topc\ X1))) \Rightarrow ((v1_pre_topc\ (k2_borsuk_1 \\ & X0\ X1)) \wedge ((v2_pre_topc\ (k2_borsuk_1\ X0\ X1)) \wedge (l1_pre_topc\ (k2_borsuk_1 \\ & X0\ X1)))) \end{aligned} \tag{3}$$

Assume the following.

$$l1_pre_topc\ k17_borsuk_1 \tag{4}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((v2_pre_topc\ X0)\wedge(l1_pre_topc\ X0))\Rightarrow(\forall X1. \\
& ((v2_pre_topc\ X1)\wedge(l1_pre_topc\ X1))\Rightarrow(\forall X2.((v1_pre_topc \\
& X2)\wedge((v2_pre_topc\ X2)\wedge(l1_pre_topc\ X2)))\Rightarrow((X2 = k2_borsuk_1 \\
& X0\ X1)\Leftrightarrow((u1_struct_0\ X2 = k2_zfmisc_1\ (u1_struct_0\ X0)\ (u1_struct_0 \\
& X1))\wedge(u1_pre_topc\ X2 = ReplSep\ (toset\ (\lambda X3 : \iota.m1_subset_1 \\
& X3\ (k1_zfmisc_1\ (k1_zfmisc_1\ (u1_struct_0\ X2))))))\ (\lambda X3 : \iota. \\
& r1_tarski\ X3\ (ReplSep2\ (toset\ (\lambda X4 : \iota.m1_subset_1\ X4\ (k1_zfmisc_1 \\
& (u1_struct_0\ X0))))\ (\lambda X4 : \iota.toset\ (\lambda X5 : \iota.m1_subset_1 \\
& X5\ (k1_zfmisc_1\ (u1_struct_0\ X1))))\ (\lambda X4 : \iota.\lambda X5 : \iota. \\
& (X4 \in u1_pre_topc\ X0)\wedge(X5 \in u1_pre_topc\ X1))\ (\lambda X4 : \iota.\lambda X5 : \\
& \iota.k8_mcart_1\ (u1_struct_0\ X0)\ (u1_struct_0\ X1)\ X4\ X5)))\ (\lambda X3 : \\
& \iota.k5_setfam_1\ (u1_struct_0\ X2)\ X3))))))
\end{aligned} \tag{5}$$

Theorem 1

$$\begin{aligned}
& u1_struct_0\ (k2_borsuk_1\ k5_topmetr\ k5_topmetr) = k2_zfmisc_1 \\
& (u1_struct_0\ k5_topmetr)\ (u1_struct_0\ k5_topmetr)
\end{aligned}$$