

t121_tmap_1 (TMbgTZo- JPRBD1deVxSNk2Tr7jBPqReGuX5w)

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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 $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_borsuk_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_pre_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_tsep_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v5_pre_topc : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_tmap_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r4_tsep_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc \\ & X0))) \Rightarrow (\forall X1.((v1_borsuk_1 X1 X0) \wedge (m1_pre_topc X1 X0)) \Rightarrow \\ & (\forall X2.((v1_borsuk_1 X2 X0) \wedge (m1_pre_topc X2 X0)) \Rightarrow (r4_tsep_1 \\ & X0 X1 X2))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc \\ & X0))) \Rightarrow (\forall X1.((\neg v2_struct_0 X1) \wedge ((v2_pre_topc X1) \wedge (l1_pre_topc \\ & X1))) \Rightarrow (\forall X2.((v1_funct_1 X2) \wedge ((v1_funct_2 X2 (u1_struct_0 \\ & X0) (u1_struct_0 X1)) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 \\ & (u1_struct_0 X0) (u1_struct_0 X1)))))) \Rightarrow (\forall X3.((\neg v2_struct_0 \\ & X3) \wedge (m1_pre_topc X3 X0)) \Rightarrow (\forall X4.((\neg v2_struct_0 X4) \wedge (m1_pre_topc \\ & X4 X0)) \Rightarrow (((X0 = k1_tsep_1 X0 X3 X4) \wedge (r4_tsep_1 X0 X3 X4)) \Rightarrow (((v1_funct_1 \\ & X2) \wedge ((v1_funct_2 X2 (u1_struct_0 X0) (u1_struct_0 X1)) \wedge ((v5_pre_topc \\ & X2 X0 X1) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 \\ & X0) (u1_struct_0 X1)))))) \Leftrightarrow (((v1_funct_1 (k2_tmap_1 X0 X1 X2 X3)) \wedge \\ & ((v1_funct_2 (k2_tmap_1 X0 X1 X2 X3) (u1_struct_0 X3) (u1_struct_0 \\ & X1)) \wedge ((v5_pre_topc (k2_tmap_1 X0 X1 X2 X3) X3 X1) \wedge (m1_subset_1 \\ & (k2_tmap_1 X0 X1 X2 X3) (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 \\ & X3) (u1_struct_0 X1)))))) \wedge ((v1_funct_1 (k2_tmap_1 X0 X1 X2 X4)) \wedge \\ & ((v1_funct_2 (k2_tmap_1 X0 X1 X2 X4) (u1_struct_0 X4) (u1_struct_0 \\ & X1)) \wedge ((v5_pre_topc (k2_tmap_1 X0 X1 X2 X4) X4 X1) \wedge (m1_subset_1 \\ & (k2_tmap_1 X0 X1 X2 X4) (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 \\ & X4) (u1_struct_0 X1))))))))))))) \end{aligned} \quad (2)$$

Theorem 1

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc \\
& X0))) \Rightarrow (\forall X1.((\neg v2_struct_0 X1) \wedge ((v2_pre_topc X1) \wedge (l1_pre_topc \\
& X1))) \Rightarrow (\forall X2.((v1_funct_1 X2) \wedge ((v1_funct_2 X2 (u1_struct_0 \\
& X0) (u1_struct_0 X1)) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 \\
& (u1_struct_0 X0) (u1_struct_0 X1)))))) \Rightarrow (\forall X3.((\neg v2_struct_0 \\
& X3) \wedge ((v1_borsuk_1 X3 X0) \wedge (m1_pre_topc X3 X0))) \Rightarrow (\forall X4.(\\
& (\neg v2_struct_0 X4) \wedge ((v1_borsuk_1 X4 X0) \wedge (m1_pre_topc X4 X0))) \Rightarrow \\
& ((X0 = k1_tsep_1 X0 X3 X4) \Rightarrow (((v1_funct_1 X2) \wedge ((v1_funct_2 X2 (u1_struct_0 \\
& X0) (u1_struct_0 X1)) \wedge ((v5_pre_topc X2 X0 X1) \wedge (m1_subset_1 X2 \\
& (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X1)))))) \Leftrightarrow \\
& (((v1_funct_1 (k2_tmap_1 X0 X1 X2 X3)) \wedge ((v1_funct_2 (k2_tmap_1 \\
& X0 X1 X2 X3) (u1_struct_0 X3) (u1_struct_0 X1)) \wedge ((v5_pre_topc (\\
& k2_tmap_1 X0 X1 X2 X3) X3 X1) \wedge (m1_subset_1 (k2_tmap_1 X0 X1 X2 X3) \\
& (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X3) (u1_struct_0 X1)))))) \wedge \\
& ((v1_funct_1 (k2_tmap_1 X0 X1 X2 X4)) \wedge ((v1_funct_2 (k2_tmap_1 \\
& X0 X1 X2 X4) (u1_struct_0 X4) (u1_struct_0 X1)) \wedge ((v5_pre_topc (\\
& k2_tmap_1 X0 X1 X2 X4) X4 X1) \wedge (m1_subset_1 (k2_tmap_1 X0 X1 X2 X4) \\
& (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X4) (u1_struct_0 X1))))))))))
\end{aligned}$$