

t136_tmap_1

(TMFa5VUKKvwcJqFGZUEX9xxdgq1qWHTdoKk)

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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 $v1_borsuk_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_pre_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_tsep_1 : \iota \Rightarrow \iota \Rightarrow o$ 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 $v5_pre_topc : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ 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 $k10_tmap_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_tsep_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ 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.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc \\ & X0))) \Rightarrow (\forall X1.((\neg v2_struct_0 X1) \wedge ((v2_pre_topc X1) \wedge (l1_pre_topc \\ & X1))) \Rightarrow (\forall X2.((\neg v2_struct_0 X2) \wedge (m1_pre_topc X2 X0)) \Rightarrow (\\ & \forall X3.((\neg v2_struct_0 X3) \wedge (m1_pre_topc X3 X0)) \Rightarrow ((r1_tsep_1 \\ & X2 X3) \Rightarrow (\forall X4.((v1_funct_1 X4) \wedge ((v1_funct_2 X4 (u1_struct_0 \\ & X2) (u1_struct_0 X1)) \wedge ((v5_pre_topc X4 X2 X1) \wedge (m1_subset_1 X4 \\ & (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X2) (u1_struct_0 X1)))))) \Rightarrow \\ & (\forall X5.((v1_funct_1 X5) \wedge ((v1_funct_2 X5 (u1_struct_0 X3) \\ & (u1_struct_0 X1)) \wedge ((v5_pre_topc X5 X3 X1) \wedge (m1_subset_1 X5 (k1_zfmisc_1 \\ & (k2_zfmisc_1 (u1_struct_0 X3) (u1_struct_0 X1)))))) \Rightarrow ((r4_tsep_1 \\ & X0 X2 X3) \Rightarrow ((v1_funct_1 (k10_tmap_1 X0 X1 X2 X3 X4 X5)) \wedge ((v1_funct_2 \\ & (k10_tmap_1 X0 X1 X2 X3 X4 X5) (u1_struct_0 (k1_tsep_1 X0 X2 X3)) (\\ & u1_struct_0 X1)) \wedge ((v5_pre_topc (k10_tmap_1 X0 X1 X2 X3 X4 X5) (k1_tsep_1 \\ & X0 X2 X3) X1) \wedge (m1_subset_1 (k10_tmap_1 X0 X1 X2 X3 X4 X5) (k1_zfmisc_1 \\ & (k2_zfmisc_1 (u1_struct_0 (k1_tsep_1 X0 X2 X3)) (u1_struct_0 X1))))))))))))) \end{aligned} \quad (2)$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc \\ & X0))) \Rightarrow (\forall X1.((\neg v2_struct_0 X1) \wedge ((v2_pre_topc X1) \wedge (l1_pre_topc \\ & X1)))) \Rightarrow (\forall X2.((\neg v2_struct_0 X2) \wedge ((v1_borsuk_1 X2 X0) \wedge (\\ & m1_pre_topc X2 X0))) \Rightarrow (\forall X3.((\neg v2_struct_0 X3) \wedge ((v1_borsuk_1 \\ & X3 X0) \wedge (m1_pre_topc X3 X0)))) \Rightarrow ((r1_tsep_1 X2 X3) \Rightarrow (\forall X4.(\\ & (v1_funct_1 X4) \wedge ((v1_funct_2 X4 (u1_struct_0 X2) (u1_struct_0 \\ & X1)) \wedge ((v5_pre_topc X4 X2 X1) \wedge (m1_subset_1 X4 (k1_zfmisc_1 (k2_zfmisc_1 \\ & (u1_struct_0 X2) (u1_struct_0 X1))))))) \Rightarrow (\forall X5.((v1_funct_1 \\ & X5) \wedge ((v1_funct_2 X5 (u1_struct_0 X3) (u1_struct_0 X1)) \wedge ((v5_pre_topc \\ & X5 X3 X1) \wedge (m1_subset_1 X5 (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 \\ & X3) (u1_struct_0 X1))))))) \Rightarrow ((v1_funct_1 (k10_tmap_1 X0 X1 X2 X3 \\ & X4 X5)) \wedge ((v1_funct_2 (k10_tmap_1 X0 X1 X2 X3 X4 X5) (u1_struct_0 \\ & (k1_tsep_1 X0 X2 X3) (u1_struct_0 X1)) \wedge ((v5_pre_topc (k10_tmap_1 \\ & X0 X1 X2 X3 X4 X5) (k1_tsep_1 X0 X2 X3) X1) \wedge (m1_subset_1 (k10_tmap_1 \\ & X0 X1 X2 X3 X4 X5) (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 (k1_tsep_1 \\ & X0 X2 X3) (u1_struct_0 X1)))))))))))))) \end{aligned}$$