

t6_topgen_3

(TMVm97dU73jQoR9HkHHnvkEewsVqTtTEJdH)

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Let $v2_pre_topc : \iota \Rightarrow o$ be given. Let $l1_pre_topc : \iota \Rightarrow o$ be given. Let $v4_pre_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $g1_pre_topc : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_pre_topc : \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(l1_pre_topc X0) \Rightarrow (\forall X1.(l1_pre_topc X1) \Rightarrow ((\\ & (u1_struct_0 X0 = u1_struct_0 X1) \wedge (\forall X2.(m1_subset_1 X2 \\ & (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow (\forall X3.(m1_subset_1 X3 \\ & (k1_zfmisc_1 (u1_struct_0 X1))) \Rightarrow ((X2 = X3) \Rightarrow ((v4_pre_topc X2 X0) \Leftrightarrow \\ & (v4_pre_topc X3 X1)))))) \Rightarrow (g1_pre_topc (u1_struct_0 X0) (u1_pre_topc \\ & X0) = g1_pre_topc (u1_struct_0 X1) (u1_pre_topc X1)))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.((v2_pre_topc X0) \wedge (l1_pre_topc X0)) \Rightarrow (\forall X1. \\ & ((v2_pre_topc X1) \wedge (l1_pre_topc X1)) \Rightarrow ((\forall X2.((v4_pre_topc \\ & X2 X0) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 X0)))) \Leftrightarrow ((v4_pre_topc \\ & X2 X1) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 X1)))))) \Rightarrow ((u1_struct_0 \\ & X0 = u1_struct_0 X1) \wedge (r1_tarski (u1_pre_topc X0) (u1_pre_topc \\ & X1)))) \end{aligned} \tag{2}$$

Theorem 1

$$\begin{aligned} & \forall X0.((v2_pre_topc X0) \wedge (l1_pre_topc X0)) \Rightarrow (\forall X1. \\ & ((v2_pre_topc X1) \wedge (l1_pre_topc X1)) \Rightarrow ((\forall X2.((v4_pre_topc \\ & X2 X0) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 X0)))) \Leftrightarrow ((v4_pre_topc \\ & X2 X1) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 X1)))))) \Rightarrow (g1_pre_topc \\ & (u1_struct_0 X0) (u1_pre_topc X0) = g1_pre_topc (u1_struct_0 X1) \\ & (u1_pre_topc X1)))) \end{aligned}$$