

t7_topgen_2

(TMU83ZMrKboALorG1EWDVNBXRMKq3txaXYP)

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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 $v1_tops_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_yellow_8 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $v3_pre_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k8_setfam_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. ((X0 \in X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 X2))) \Rightarrow (m1_subset_1 X0 X2) \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge (l1_pre_topc X0)) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. (m1_subset_1 X2 \\ & (k1_zfmisc_1 (k1_zfmisc_1 (u1_struct_0 X0)))) \Rightarrow ((v1_yellow_8 \\ & X2 X0 X1) \Leftrightarrow ((X1 \in k8_setfam_1 (u1_struct_0 X0) X2) \wedge (\forall X3. (\\ & m1_subset_1 X3 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow (\neg (v3_pre_topc \\ & X3 X0) \wedge ((X1 \in X3) \wedge (\forall X4. (m1_subset_1 X4 (k1_zfmisc_1 (u1_struct_0 \\ & X0))) \Rightarrow (\neg (X4 \in X2) \wedge (r1_tarski X4 X3)))))))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. (l1_pre_topc X0) \Rightarrow (\forall X1. (m1_subset_1 X1 (k1_zfmisc_1 \\ & (k1_zfmisc_1 (u1_struct_0 X0)))) \Rightarrow ((v1_tops_2 X1 X0) \Leftrightarrow (\forall X2. \\ & (m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow ((X2 \in X1) \Rightarrow (v3_pre_topc \\ & X2 X0)))) \end{aligned} \quad (3)$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge (v2_pre_topc X0) \wedge (l1_pre_topc \\ & X0)) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. \\ & (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3.((v1_tops_2 X3 \\ & X0) \wedge ((v1_yellow_8 X3 X0 X1) \wedge (m1_subset_1 X3 (k1_zfmisc_1 (k1_zfmisc_1 \\ & (u1_struct_0 X0)))))) \Rightarrow (\forall X4.((v1_tops_2 X4 X0) \wedge ((v1_yellow_8 \\ & X4 X0 X2) \wedge (m1_subset_1 X4 (k1_zfmisc_1 (k1_zfmisc_1 (u1_struct_0 \\ & X0)))))) \Rightarrow (\forall X5. \neg (X1 \in X5) \wedge ((X5 \in X4) \wedge (\forall X6.((v3_pre_topc \\ & X6 X0) \wedge (m1_subset_1 X6 (k1_zfmisc_1 (u1_struct_0 X0)))) \Rightarrow (\neg (X6 \in \\ & X3) \wedge (r1_tarski X6 X5)))))))))) \end{aligned}$$