

t64_topgen_4
(TMGjM5UQZEF5eT1aUq616Bm31akMiVJSh8)

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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 $v2_tops_2 : \iota \Rightarrow \iota \Rightarrow o$ 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 $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_topgen_4 : \iota \Rightarrow \iota$ be given. Let $v1_prob_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_topgen_4 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3_topgen_4 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2_topgen_4 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v4_pre_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v4_topgen_4 : \iota \Rightarrow \iota \Rightarrow o$ 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.

$$\forall X0.((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc X0))) \Rightarrow ((v1_prob_1 (k5_topgen_4 X0) (u1_struct_0 X0)) \wedge ((v1_topgen_4 (k5_topgen_4 X0) X0) \wedge ((v3_topgen_4 (k5_topgen_4 X0) (u1_struct_0 X0)) \wedge (m1_subset_1 (k5_topgen_4 X0) (k1_zfmisc_1 (k1_zfmisc_1 (u1_struct_0 X0))))))) \quad (2)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc X0))) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (k1_zfmisc_1 (u1_struct_0 X0)))) \Rightarrow ((v2_topgen_4 X1 X0) \Leftrightarrow (\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow ((v4_pre_topc X2 X0) \Rightarrow (X2 \in X1)))))) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.(r1_tarski X0 X1) \Leftrightarrow (\forall X2.(X2 \in X0) \Rightarrow (X2 \in X1)) \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0.(l1_pre_topc\ X0) \Rightarrow (\forall X1.(m1_subset_1\ X1\ (k1_zfmisc_1 \\ & (k1_zfmisc_1\ (u1_struct_0\ X0)))) \Rightarrow ((v2_tops_2\ X1\ X0) \Leftrightarrow (\forall X2. \\ & (m1_subset_1\ X2\ (k1_zfmisc_1\ (u1_struct_0\ X0))) \Rightarrow ((X2 \in X1) \Rightarrow (v4_pre_topc \\ & X2\ X0)))))) \end{aligned} \tag{5}$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0\ X0) \wedge ((v2_pre_topc\ X0) \wedge (l1_pre_topc \\ & X0))) \Rightarrow (\forall X1.(m1_subset_1\ X1\ (k1_zfmisc_1\ (k1_zfmisc_1 \\ & (u1_struct_0\ X0)))) \Rightarrow (((v1_prob_1\ X1\ (u1_struct_0\ X0)) \wedge ((v1_topgen_4 \\ & X1\ X0) \wedge (v3_topgen_4\ X1\ (u1_struct_0\ X0)))) \Rightarrow ((v2_topgen_4\ X1\ X0) \wedge \\ & (v4_topgen_4\ X1\ (u1_struct_0\ X0)))))) \end{aligned} \tag{6}$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v2_struct_0\ X0) \wedge ((v2_pre_topc\ X0) \wedge (l1_pre_topc \\ & X0))) \Rightarrow (\forall X1.((v2_tops_2\ X1\ X0) \wedge (m1_subset_1\ X1\ (k1_zfmisc_1 \\ & (k1_zfmisc_1\ (u1_struct_0\ X0)))) \Rightarrow (r1_tarski\ X1\ (k5_topgen_4 \\ & X0))) \end{aligned}$$