

t6_topgen_1
(TMFhJDRdkGDc6XFtJaFkj1ndmpzYHgV4sU7)

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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 $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_topgen_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_tops_1 : \iota \Rightarrow \iota \Rightarrow \iota$ 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.

$$\begin{aligned} & \forall X0. \forall X1. (((v2_pre_topc X0) \wedge (l1_pre_topc X0)) \wedge \\ & (m1_subset_1 X1 (k1_zfmisc_1 (k1_zfmisc_1 (u1_struct_0 X0)))) \Rightarrow \\ & (m1_subset_1 (k1_topgen_1 X0 X1) (k1_zfmisc_1 (k1_zfmisc_1 (u1_struct_0 \\ & X0)))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (r1_tarski X0 X1) \Leftrightarrow (\forall X2. (X2 \in X0) \Rightarrow (X2 \in X1)) \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((v2_pre_topc X0) \wedge (l1_pre_topc X0)) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (k1_zfmisc_1 (k1_zfmisc_1 (u1_struct_0 X0)))) \Rightarrow \\ & (\forall X2. (m1_subset_1 X2 (k1_zfmisc_1 (k1_zfmisc_1 (u1_struct_0 \\ & X0)))) \Rightarrow ((X2 = k1_topgen_1 X0 X1) \Leftrightarrow (\forall X3. (m1_subset_1 X3 (\\ & k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow ((X3 \in X2) \Leftrightarrow (\exists X4. (m1_subset_1 \\ & X4 (k1_zfmisc_1 (u1_struct_0 X0))) \wedge ((X3 = k2_tops_1 X0 X4) \wedge (X4 \in \\ & X1)))))))) \end{aligned} \quad (4)$$

Theorem 1

$$\begin{aligned} & \forall X0. ((v2_pre_topc X0) \wedge (l1_pre_topc X0)) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (k1_zfmisc_1 (k1_zfmisc_1 (u1_struct_0 X0)))) \Rightarrow \\ & (\forall X2. (m1_subset_1 X2 (k1_zfmisc_1 (k1_zfmisc_1 (u1_struct_0 \\ & X0)))) \Rightarrow ((r1_tarski X1 X2) \Rightarrow (r1_tarski (k1_topgen_1 X0 X1) (k1_topgen_1 \\ & X0 X2)))) \end{aligned}$$