

t21_topgen_2
(TMciw9jMeiUsiTpCG2UtaXL87eYcbPMmue3)

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Let $v4_pre_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $k5_topgen_2 : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $v1_finset_1 : \iota \Rightarrow o$ be given. Let $v1_pre_topc : \iota \Rightarrow o$ be given. Let $l1_pre_topc : \iota \Rightarrow o$ be given. Let $u1_pre_topc : \iota \Rightarrow \iota$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.\forall X1.(X0 \in X1) \Rightarrow (m1_subset_1 (k1_tarski X0) (k1_zfmisc_1 X1)) \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 (k5_topgen_2 X0 X1)))) \Rightarrow ((v4_pre_topc X2 (k5_topgen_2 X0 X1)) \Leftrightarrow (\neg(X1 \in X0) \wedge ((\neg X1 \in X2) \wedge (\neg v1_finset_1 X2)))) \quad (2)$$

Assume the following.

$$\forall X0.v1_finset_1 (k1_tarski X0) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.(v1_pre_topc (k5_topgen_2 X0 X1)) \wedge (l1_pre_topc (k5_topgen_2 X0 X1)) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((v1_pre_topc X2) \wedge (l1_pre_topc X2)) \Rightarrow ((X2 = k5_topgen_2 X0 X1) \Leftrightarrow ((u1_struct_0 X2 = X0) \wedge (u1_pre_topc X2 = k2_xboole_0 (ReplSep (toset (\lambda X3 : \iota.m1_subset_1 X3 (k1_zfmisc_1 X0))) (\lambda X3 : \iota.\neg X1 \in X3)) (\lambda X3 : \iota.X3)) (ReplSep (toset (\lambda X3 : \iota.m1_subset_1 X3 (k1_zfmisc_1 X0))) (\lambda X3 : \iota.v1_finset_1 X3)) (\lambda X3 : \iota.k3_subset_1 X0 X3)))))) \quad (5)$$

Theorem 1

$$\forall X0.\forall X1.\forall X2.(X2 \in X0) \Rightarrow ((v4_pre_topc (k1_tarSKI X2) (k5_topgen_2 X0 X1)) \wedge (m1_subset_1 (k1_tarSKI X2) (k1_zfmisc_1 (u1_struct_0 (k5_topgen_2 X0 X1))))))$$