

t22_topgen_2
(TMRNCaQoj5tUpCMyN8MzJSq1F5G4hFEf4qz)

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Let $v3_pre_topc : \iota \Rightarrow \iota \Rightarrow o$ 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 $v4_pre_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $k3_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. (X2 \in X0) \Rightarrow ((v4_pre_topc (k1_tarski X2) (k5_topgen_2 X0 X1)) \wedge (m1_subset_1 (k1_tarski X2) (k1_zfmisc_1 (u1_struct_0 (k5_topgen_2 X0 X1)))))) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 (k5_topgen_2 X0 X1)))) \Rightarrow ((v3_pre_topc X2 (k5_topgen_2 X0 X1)) \Leftrightarrow (\neg (X1 \in X2) \wedge (\neg v1_finset_1 (k3_subset_1 (u1_struct_0 (k5_topgen_2 X0 X1)) X2)))) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (X1 = k1_tarski X0) \Leftrightarrow (\forall X2. (X2 \in X1) \Leftrightarrow (X2 = X0)) \quad (3)$$

Theorem 1

$$\forall X0. \forall X1. \forall X2. (X2 \in X0) \Rightarrow ((X2 = X1) \vee ((v3_pre_topc (k1_tarski X2) (k5_topgen_2 X0 X1)) \wedge (m1_subset_1 (k1_tarski X2) (k1_zfmisc_1 (u1_struct_0 (k5_topgen_2 X0 X1))))))$$