

l30_simplex0 (TMTL- nUBg99mXwTgQF4k1sfbo4K3XTXE4Rv7)

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Let $l1_pre_topc : \iota \Rightarrow o$ be given. Let $v2_simplex0 : \iota \Rightarrow o$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $u1_pre_topc : \iota \Rightarrow \iota$ be given. Let $k3_tarski : \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k5_setfam_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_simplex0 : \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.((v1_finset_1 X0) \wedge (\forall X1.(X1 \in X0) \Rightarrow (v1_finset_1 X1))) \Leftrightarrow (v1_finset_1 (k3_tarski X0)) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (k1_zfmisc_1 X0))) \Rightarrow (k5_setfam_1 X0 X1 = k3_tarski X1) \quad (2)$$

Assume the following.

$$\forall X0.(l1_pre_topc X0) \Rightarrow (k4_simplex0 X0 = k5_setfam_1 (u1_struct_0 X0) (u1_pre_topc X0)) \quad (3)$$

Assume the following.

$$\forall X0.(\neg v1_finset_1 X0) \Rightarrow (\neg v1_finset_1 (k1_zfmisc_1 X0)) \quad (4)$$

Assume the following.

$$\forall X0.(v1_finset_1 X0) \Rightarrow (v1_finset_1 (k1_zfmisc_1 X0)) \quad (5)$$

Assume the following.

$$\forall X0.(l1_pre_topc X0) \Rightarrow (m1_subset_1 (u1_pre_topc X0) (k1_zfmisc_1 (k1_zfmisc_1 (u1_struct_0 X0)))) \quad (6)$$

Assume the following.

$$\forall X0.(l1_pre_topc X0) \Rightarrow ((v2_simplex0 X0) \Leftrightarrow (v1_finset_1 (k4_simplex0 X0))) \quad (7)$$

Theorem 1

$$\forall X0.(l1_pre_topc X0) \Rightarrow ((v2_simplex0 X0) \Rightarrow (v1_finset_1 (u1_pre_topc X0)))$$