

t60_simplex0 (TMPMkchnRDiT- syFEg1URjH2XweK5Xj8mWco)

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Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $m1_simplex0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $g1_pre_topc : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $u1_pre_topc : \iota \Rightarrow \iota$ be given. Let $k10_simplex0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ 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 $v1_tops_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ be given. Let $v1_pre_topc : \iota \Rightarrow o$ be given. Let $k2_struct_0 : \iota \Rightarrow \iota$ be given. Let $v3_pre_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v6_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $k7_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(l1_pre_topc X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (k1_zfmisc_1 (u1_struct_0 X0)))) \Rightarrow ((v1_tops_2 X1 X0) \Leftrightarrow (r1_tarski X1 (u1_pre_topc X0)))) \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (k1_zfmisc_1 X0))) \Rightarrow (\forall X2.\forall X3.(g1_pre_topc X0 X1 = g1_pre_topc X2 X3) \Rightarrow ((X0 = X2) \wedge (X1 = X3))) \quad (2)$$

Assume the following.

$$\forall X0.(l1_pre_topc X0) \Rightarrow (m1_subset_1 (u1_pre_topc X0) (k1_zfmisc_1 (k1_zfmisc_1 (u1_struct_0 X0)))) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.(m1_simplex0 X1 X0) \Rightarrow (l1_pre_topc X1) \quad (4)$$

Assume the following.

$$\forall X0.(l1_pre_topc X0) \Rightarrow (l1_struct_0 X0) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((m1_simplex0 X1 X0) \wedge ((v1_relat_1 X2) \wedge (v1_funct_1 X2))) \Rightarrow ((v1_pre_topc (k10_simplex0 X0 X1 X2)) \wedge (m1_simplex0 (k10_simplex0 X0 X1 X2) X0)) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (k1_zfmisc_1 X0)))\Rightarrow((v1_pre_topc (g1_pre_topc X0 X1))\wedge(l1_pre_topc (g1_pre_topc X0 X1))) \quad (7)$$

Assume the following.

$$\forall X0.(l1_struct_0 X0)\Rightarrow(k2_struct_0 X0 = u1_struct_0 X0) \quad (8)$$

Assume the following.

$$\begin{aligned} &\forall X0.\forall X1.(m1_simplex0 X1 X0)\Rightarrow(\forall X2.((v1_relat_1 X2)\wedge(v1_funct_1 X2))\Rightarrow(\forall X3.((v1_pre_topc X3)\wedge(m1_simplex0 X3 X0))\Rightarrow((X3 = k10_simplex0 X0 X1 X2)\Leftrightarrow((k2_struct_0 X3 = k2_struct_0 X1)\wedge(\forall X4.(m1_subset_1 X4 (k1_zfmisc_1 (u1_struct_0 X3)))\Rightarrow((v3_pre_topc X4 X3)\Leftrightarrow(\exists X5.((v6_ordinal1 X5)\wedge((v1_finset_1 X5)\wedge((v1_tops_2 X5 X1)\wedge(m1_subset_1 X5 (k1_zfmisc_1 (k1_zfmisc_1 (u1_struct_0 X1))))))))\wedge(X4 = k7_relat_1 X2 X5)))))))))) \end{aligned} \quad (9)$$

Assume the following.

$$\forall X0.(l1_pre_topc X0)\Rightarrow((v1_pre_topc X0)\Rightarrow(X0 = g1_pre_topc (u1_struct_0 X0) (u1_pre_topc X0))) \quad (10)$$

Theorem 1

$$\begin{aligned} &\forall X0.\forall X1.((v1_relat_1 X1)\wedge(v1_funct_1 X1))\Rightarrow(\forall X2. \\ &(m1_simplex0 X2 X0)\Rightarrow(\forall X3.(m1_simplex0 X3 X0)\Rightarrow((g1_pre_topc (u1_struct_0 X2) (u1_pre_topc X2) = g1_pre_topc (u1_struct_0 X3) (u1_pre_topc X3))\Rightarrow(k10_simplex0 X0 X2 X1 = k10_simplex0 X0 X3 X1)))) \end{aligned}$$