

t11_simplex1

(TMJTshAxQEagA8fvuSadjDTb9quzMJoZSUQ)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $l1_rlvect_1 : \iota \Rightarrow o$ be given. Let $m1_simplex0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $m1_simplex1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_simplex1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $v3_pre_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_convex1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_simplex1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. r1_tarski X0 X0 \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge (l1_rlvect_1 X0)) \Rightarrow (\forall X1. \\ & (m1_simplex0 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. (m1_simplex0 X2 \\ & (u1_struct_0 X0)) \Rightarrow ((m1_simplex1 X2 X0 X1) \Leftrightarrow ((r1_tarski (k3_simplex1 \\ & X0 X1) (k3_simplex1 X0 X2)) \wedge (\forall X3. (m1_subset_1 X3 (k1_zfmisc_1 \\ & (u1_struct_0 X2))) \Rightarrow (\neg (v3_pre_topc X3 X2) \wedge (\forall X4. (m1_subset_1 \\ & X4 (k1_zfmisc_1 (u1_struct_0 X1))) \Rightarrow (\neg (v3_pre_topc X4 X1) \wedge (r1_tarski \\ & (k3_convex1 X0 (k1_simplex1 X0 X2 X3)) (k3_convex1 X0 (k1_simplex1 \\ & X0 X1 X4)))))))))) \end{aligned} \tag{2}$$

Theorem 1

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge (l1_rlvect_1 X0)) \Rightarrow (\forall X1. \\ & (m1_simplex0 X1 (u1_struct_0 X0)) \Rightarrow (m1_simplex1 X1 X0 X1)) \end{aligned}$$