

t14_simplex1

(TMJX7MxTZUV8aaAQQGjuJuYkQrCYh3AHFG92)

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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.

$$\forall X0. \forall X1. \forall X2. ((r1_tarski X0 X1) \wedge (r1_tarski X1 X2)) \Rightarrow (r1_tarski X0 X2) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (((\neg v2_struct_0 X0) \wedge (l1_rlvect_1 X0)) \wedge (m1_simplex0 X1 (u1_struct_0 X0))) \Rightarrow (\forall X2. (m1_simplex1 X2 X0 X1) \Rightarrow (m1_simplex0 X2 (u1_struct_0 X0))) \quad (2)$$

Assume the following.

$$\forall X0. ((\neg v2_struct_0 X0) \wedge (l1_rlvect_1 X0)) \Rightarrow (\forall X1. (m1_simplex0 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. (m1_simplex0 X2 (u1_struct_0 X0)) \Rightarrow ((m1_simplex1 X2 X0 X1) \Leftrightarrow ((r1_tarski (k3_simplex1 X0 X1) (k3_simplex1 X0 X2)) \wedge (\forall X3. (m1_subset_1 X3 (k1_zfmisc_1 (u1_struct_0 X2))) \Rightarrow (\neg (v3_pre_topc X3 X2) \wedge (\forall X4. (m1_subset_1 X4 (k1_zfmisc_1 (u1_struct_0 X1))) \Rightarrow (\neg (v3_pre_topc X4 X1) \wedge (r1_tarski (k3_convex1 X0 (k1_simplex1 X0 X2 X3)) (k3_convex1 X0 (k1_simplex1 X0 X1 X4))))))))))) \quad (3)$$

Theorem 1

$$\forall X0. ((\neg v2_struct_0 X0) \wedge (l1_rlvect_1 X0)) \Rightarrow (\forall X1. (m1_simplex0 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. (m1_simplex1 X2 X0 X1) \Rightarrow (\forall X3. (m1_simplex1 X3 X0 X2) \Rightarrow (m1_simplex1 X3 X0 X1))))$$