

t35_simplex0 (TML- gcPL6XNUX3cJApdpTiMGr5HEYQy635Us)

October 27, 2020

Let $m1_simplex0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m2_simplex0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v7_simplex0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_matroid0 : \iota \Rightarrow o$ be given. Let $v3_matroid0 : \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_subset.1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc.1 : \iota \Rightarrow \iota$ be given. Let $u1_struct.0 : \iota \Rightarrow \iota$ be given. Let $u1_pre_topc : \iota \Rightarrow \iota$ be given. Let $v3_pre_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_struct.0 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. (m1_simplex0 X1 X0) \Rightarrow (\forall X2. (m2_simplex0 X2 X0 X1) \Rightarrow ((v1_matroid0 X2) \wedge ((v3_matroid0 X2) \wedge (m1_simplex0 X2 X0)))) \tag{1}$$

Assume the following.

$$\forall X0. \forall X1. (r1_tarski X0 X1) \Leftrightarrow (\forall X2. (X2 \in X0) \Rightarrow (X2 \in X1)) \tag{2}$$

Assume the following.

$$\forall X0. \forall X1. (m1_simplex0 X1 X0) \Rightarrow (\forall X2. (m2_simplex0 X2 X0 X1) \Rightarrow ((v7_simplex0 X2 X0 X1) \Leftrightarrow (\forall X3. (m1_subset.1 X3 (k1_zfmisc.1 (u1_struct.0 X2)) \Rightarrow ((X3 \in u1_pre_topc X1) \Rightarrow (v3_pre_topc X3 X2)))))) \tag{3}$$

Assume the following.

$$\forall X0. \forall X1. (m1_simplex0 X1 X0) \Rightarrow (\forall X2. ((v1_matroid0 X2) \wedge ((v3_matroid0 X2) \wedge (m1_simplex0 X2 X0))) \Rightarrow ((m2_simplex0 X2 X0 X1) \Leftrightarrow ((r1_tarski (k2_struct.0 X2) (k2_struct.0 X1)) \wedge (r1_tarski (u1_pre_topc X2) (u1_pre_topc X1)))))) \tag{4}$$

Theorem 1

$$\forall X0. \forall X1. (m1_simplex0 X1 X0) \Rightarrow (\forall X2. (m2_simplex0 X2 X0 X1) \Rightarrow (\forall X3. (m2_simplex0 X3 X0 X2) \Rightarrow (((v7_simplex0 X3 X0 X1) \wedge (m2_simplex0 X3 X0 X1)) \Rightarrow (v7_simplex0 X3 X0 X2))))$$