

t29\_simplex0 (TMLNQe-  
Mysp56NhpHv3LQFoB3D8wdCZQFmvx)

October 27, 2020

Let  $v1\_matroid0 : \iota \Rightarrow o$  be given. Let  $m1\_simplex0 : \iota \Rightarrow \iota \Rightarrow o$  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  $v5\_finset\_1 : \iota \Rightarrow o$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u1\_pre\_topc : \iota \Rightarrow \iota$  be given. Let  $v1\_pre\_topc : \iota \Rightarrow o$  be given. Let  $k5\_simplex0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $m2\_simplex0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_classes1 : \iota \Rightarrow o$  be given. Let  $k1\_simplex0 : \iota \Rightarrow \iota$  be given. Let  $k2\_simplex0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $l1\_pre\_topc : \iota \Rightarrow o$  be given. Let  $k1\_matroid0 : \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0. \forall X1. ((r1\_tarski X0 X1) \wedge (v1\_classes1 X1)) \Rightarrow (r1\_tarski (k1\_simplex0 X0) X1) \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. (m1\_simplex0 X1 X0) \Rightarrow (\forall X2. (m1\_subset\_1 \\ X2 (k1\_zfmisc\_1 (u1\_struct\_0 X1))) \Rightarrow (\forall X3. ((v5\_finset\_1 \\ X3) \wedge (m1\_subset\_1 X3 (k1\_zfmisc\_1 (k1\_zfmisc\_1 X2)))) \Rightarrow ((r1\_tarski \\ (k2\_simplex0 X2 X3) (u1\_pre\_topc X1)) \Rightarrow ((v1\_pre\_topc (k5\_simplex0 \\ X2 X3)) \wedge (m2\_simplex0 (k5\_simplex0 X2 X3) X0 X1)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k1\_zfmisc\_1 X0))) \Rightarrow (k2\_simplex0 X0 X1 = k1\_simplex0 X1) \quad (3)$$

Assume the following.

$$\forall X0. ((v1\_matroid0 X0) \wedge (l1\_pre\_topc X0)) \Rightarrow (v1\_classes1 (k1\_matroid0 X0)) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. (m1\_simplex0 X1 X0) \Rightarrow (l1\_pre\_topc X1) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 (k1\_zfmisc\_1 X0)))\Rightarrow((v1\_pre\_topc (k5\_simplex0 X0 X1))\wedge(m1\_simplex0 (k5\_simplex0 X0 X1) X0)) \quad (6)$$

Assume the following.

$$\forall X0.(l1\_pre\_topc X0)\Rightarrow(k1\_matroid0 X0 = u1\_pre\_topc X0) \quad (7)$$

**Theorem 1**

$$\begin{aligned} &\forall X0.\forall X1.((v1\_matroid0 X1)\wedge(m1\_simplex0 X1 X0))\Rightarrow \\ &(\forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 (u1\_struct\_0 X1)))\Rightarrow \\ &(\forall X3.((v5\_finset\_1 X3)\wedge(m1\_subset\_1 X3 (k1\_zfmisc\_1 (k1\_zfmisc\_1 X2))))\Rightarrow((r1\_tarski X3 (u1\_pre\_topc X1))\Rightarrow((v1\_pre\_topc (k5\_simplex0 X2 X3))\wedge(m2\_simplex0 (k5\_simplex0 X2 X3) X0 X1)))))) \end{aligned}$$