t38_simplex0 (TMameKbmmSFRjD-KhwGCWGM7mgrarwpfhcKy)

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Let $v1\_matroid0 : \iota \Rightarrow o$ be given. Let $v3\_matroid0 : \iota \Rightarrow o$ 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 $k7\_simplex0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ 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 $v1\_pre\_topc : \iota \Rightarrow o$ be given. Let $k2\_struct\_0 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.\forall X1.(m1\_simplex0\ X1\ X0) \Rightarrow (\forall X2.(m2\_simplex0\ X2\ X0\ X1) \Rightarrow (\forall X3.(m2\_simplex0\ X3\ X0\ X2) \Rightarrow (((v7\_simplex0\ X2\ X0\ X1) \wedge (v7\_simplex0\ X3\ X0\ X2)) \Rightarrow ((v7\_simplex0\ X3\ X0\ X1) \wedge (m2\_simplex0\ X3\ X0\ X1))))) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_simplex0\ X1\ X0) \Rightarrow (\forall X2.(m2\_simplex0\ X2\ X0\ X1) \Rightarrow ((v1\_matroid0\ X2) \wedge ((v3\_matroid0\ X2) \wedge (m1\_simplex0\ X2\ X0)))) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(((v1\_matroid0\ X1) \wedge (m1\_simplex0\ X1\ X0)) \wedge (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X1)))) \Rightarrow ((v1\_pre\_topc\ (k7\_simplex0\ X0\ X1\ X2)) \wedge ((v7\_simplex0\ (k7\_simplex0\ X0\ X1\ X2)\ X0\ X1) \wedge (m2\_simplex0\ (k7\_simplex0\ X0\ X1\ X2)\ X0\ X1))) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_matroid0\ X1) \wedge ((v3\_matroid0\ X1) \wedge (m1\_simplex0\ X1\ X0))) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X1))) \Rightarrow (\forall X3.((v1\_pre\_topc\ X3) \wedge ((v7\_simplex0\ X3\ X0\ X1) \wedge (m2\_simplex0\ X3\ X0\ X1))) \Rightarrow ((X3 = k7\_simplex0\ X0\ X1\ X2) \Leftrightarrow (k2\_struct\_0\ X3 = X2)))) \tag{4}$$

Theorem 1

$$\forall X0.\forall X1.((v1\_matroid0\ X1)\wedge((v3\_matroid0\ X1)\wedge(m1\_simplex0\ X1\ X0)))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X1)))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X1)))\Rightarrow(\forall X4.(m1\_subset\_1\ X4\ (k1\_zfmisc\_1\ (u1\_struct\_0\ (k7\_simplex0\ X0\ X1\ X2))))\Rightarrow((X4 = X3)\Rightarrow(k7\_simplex0\ X0\ (k7\_simplex0\ X0\ X1\ X2)\ X4 = k7\_simplex0\ X0\ X1\ X3)))))$$