l27_simplex0 (TMXW9knUn8hULqGNFbFymUpyw1mPTRYkinz)

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Let $l1\_pre\_topc : \iota \Rightarrow o$ 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 $v3\_pre\_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4\_simplex0 : \iota \Rightarrow \iota$ be given. Let $v1\_simplex0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.\forall X1.\forall X2.((X0 \in X1) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X2))) \Rightarrow (m1\_subset\_1\ X0\ X2) \tag{1}$$

Assume the following.

$$\forall X0.(l1\_pre\_topc\ X0) \Rightarrow (m1\_subset\_1\ (k4\_simplex0\ X0)\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))) \tag{2}$$

Assume the following.

$$\forall X0.(l1\_pre\_topc\ X0) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))) \Rightarrow ((X1 = k4\_simplex0\ X0) \Leftrightarrow (\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0)) \Rightarrow ((X2 \in X1) \Leftrightarrow (v1\_simplex0\ X2\ X0))))) \tag{3}$$

Assume the following.

$$\forall X0.(l1\_pre\_topc\ X0) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0)) \Rightarrow ((v1\_simplex0\ X1\ X0) \Leftrightarrow (\exists X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))) \wedge ((v3\_pre\_topc\ X2\ X0) \wedge (X1 \in X2))))) \tag{4}$$

Theorem 1

$$\forall X0.\forall X1.(l1\_pre\_topc\ X1) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X1))) \Rightarrow (((v3\_pre\_topc\ X2\ X1) \wedge (X0 \in X2)) \Rightarrow (X0 \in k4\_simplex0\ X1)))$$