

t18_simplex1 (TMPpznqB- dJj4UQ9ZwWQGdtFLqaaMp38MQxM)

October 27, 2020

Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v13_algstr_0 : \iota \Rightarrow o$ be given. Let $v2_rlvect_1 : \iota \Rightarrow o$ be given. Let $v3_rlvect_1 : \iota \Rightarrow o$ be given. Let $v4_rlvect_1 : \iota \Rightarrow o$ be given. Let $v5_rlvect_1 : \iota \Rightarrow o$ be given. Let $v6_rlvect_1 : \iota \Rightarrow o$ be given. Let $v7_rlvect_1 : \iota \Rightarrow o$ be given. Let $v8_rlvect_1 : \iota \Rightarrow o$ be given. Let $l1_rlvect_1 : \iota \Rightarrow o$ be given. Let $v3_pencil_1 : \iota \Rightarrow o$ be given. 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 $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_simplex1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_struct_0 : \iota \Rightarrow \iota$ be given. Let $k5_simplex1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $k11_simplex0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_rlaffin2 : \iota \Rightarrow \iota$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_orders_1 : \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (v7_ordinal1 X1) \Rightarrow (\forall X2. (m1_simplex0 \\ & X2 X0) \Rightarrow (\forall X3. ((v1_relat_1 X3) \wedge (v1_funct_1 X3)) \Rightarrow (k2_struct_0 \\ & (k11_simplex0 X0 X2 X3 X1) = k2_struct_0 X2))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. v1_relat_1 (k2_zfmisc_1 X0 X1) \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 \\ & X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v5_rlvect_1 X0) \wedge \\ & ((v6_rlvect_1 X0) \wedge ((v7_rlvect_1 X0) \wedge ((v8_rlvect_1 X0) \wedge (l1_rlvect_1 \\ & X0)))))))))) \Rightarrow ((v1_funct_1 (k2_rlaffin2 X0)) \wedge ((v1_funct_2 (\\ & k2_rlaffin2 X0) (k1_orders_1 (u1_struct_0 X0)) (u1_struct_0 X0)) \wedge \\ & (m1_subset_1 (k2_rlaffin2 X0) (k1_zfmisc_1 (k2_zfmisc_1 (k1_orders_1 \\ & (u1_struct_0 X0)) (u1_struct_0 X0)))))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned}
& \forall X0.(v7_ordinal1\ X0) \Rightarrow (\forall X1.((\neg v2_struct_0\ X1) \wedge \\
& ((v13_algstr_0\ X1) \wedge (v2_rlvect_1\ X1) \wedge (v3_rlvect_1\ X1) \wedge (v4_rlvect_1 \\
& X1) \wedge (v5_rlvect_1\ X1) \wedge (v6_rlvect_1\ X1) \wedge (v7_rlvect_1\ X1) \wedge \\
& ((v8_rlvect_1\ X1) \wedge (l1_rlvect_1\ X1)))))) \Rightarrow (\forall X2.((\\
& \neg v3_pencil_1\ X2) \wedge ((v1_matroid0\ X2) \wedge ((v3_matroid0\ X2) \wedge (m1_simplex0 \\
& X2\ (u1_struct_0\ X1)))))) \Rightarrow ((r1_tarski\ (k3_simplex1\ X1\ X2)\ (k2_struct_0 \\
& X2)) \Rightarrow (k5_simplex1\ X0\ X1\ X2 = k11_simplex0\ (u1_struct_0\ X1)\ X2\ (k2_rlaffin2 \\
& X1)\ X0)))
\end{aligned} \tag{4}$$

Assume the following.

$$\forall X0.(v1_relat_1\ X0) \Rightarrow (\forall X1.(m1_subset_1\ X1\ (k1_zfmisc_1\ X0)) \Rightarrow (v1_relat_1\ X1)) \tag{5}$$

Theorem 1

$$\begin{aligned}
& \forall X0.(v7_ordinal1\ X0) \Rightarrow (\forall X1.((\neg v2_struct_0\ X1) \wedge \\
& ((v13_algstr_0\ X1) \wedge (v2_rlvect_1\ X1) \wedge (v3_rlvect_1\ X1) \wedge (v4_rlvect_1 \\
& X1) \wedge (v5_rlvect_1\ X1) \wedge (v6_rlvect_1\ X1) \wedge (v7_rlvect_1\ X1) \wedge \\
& ((v8_rlvect_1\ X1) \wedge (l1_rlvect_1\ X1)))))) \Rightarrow (\forall X2.((\\
& \neg v3_pencil_1\ X2) \wedge ((v1_matroid0\ X2) \wedge ((v3_matroid0\ X2) \wedge (m1_simplex0 \\
& X2\ (u1_struct_0\ X1)))))) \Rightarrow ((r1_tarski\ (k3_simplex1\ X1\ X2)\ (k2_struct_0 \\
& X2)) \Rightarrow (k2_struct_0\ (k5_simplex1\ X0\ X1\ X2) = k2_struct_0\ X2)))
\end{aligned}$$