t9_simplex0 (TMX8HfeNaLT54SCeNyKYDi5mA3XFsi8BogS)

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Let $v1\_finset\_1 : \iota \Rightarrow o$ be given. Let $v6\_ordinal1 : \iota \Rightarrow o$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $k3\_tarski : \iota \Rightarrow \iota$ be given. Let $k1\_xboole\_0 : \iota$ be given. Let $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.\neg(v1\_finset\_1\ X0) \wedge ((X0 \neq k1\_xboole\_0) \wedge ((v6\_ordinal1\ X0) \wedge (\forall X1.\neg(X1 \in X0) \wedge (\forall X2.(X2 \in X0) \Rightarrow (r1\_tarski\ X2\ X1))))) \tag{1}$$

Assume the following.

$$v1\_xboole\_0\ k1\_xboole\_0 \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.(X1 = k3\_tarski\ X0) \Leftrightarrow (\forall X2.(X2 \in X1) \Leftrightarrow (\exists X3.(X2 \in X3) \wedge (X3 \in X0))) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.(r1\_tarski\ X0\ X1) \Leftrightarrow (\forall X2.(X2 \in X0) \Rightarrow (X2 \in X1)) \tag{4}$$

Theorem 1

$$\forall X0.((v1\_finset\_1\ X0) \wedge (v6\_ordinal1\ X0)) \Rightarrow ((v1\_xboole\_0\ X0) \vee (k3\_tarski\ X0 \in X0))$$