

t6\_simplex0  
(TMKoSgLRS5EeTyyzgEyvQKmBs5jsqeHtu86)

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Let  $r1\_setfam\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_simplex0 : \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0. \forall X1. (X0 \in k1\_simplex0 X1) \Leftrightarrow (\exists X2. (r1\_tarski X0 X2) \wedge (X2 \in X1)) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((r1\_tarski X0 X1) \wedge (r1\_tarski X1 X2)) \Rightarrow (r1\_tarski X0 X2) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. r1\_tarski X0 X0 \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. (r1\_tarski X0 X1) \Leftrightarrow (\forall X2. (X2 \in X0) \Rightarrow (X2 \in X1)) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. (r1\_setfam\_1 X0 X1) \Leftrightarrow (\forall X2. \neg (X2 \in X0) \wedge (\forall X3. \neg (X3 \in X1) \wedge (r1\_tarski X2 X3))) \quad (5)$$

**Theorem 1**

$$\forall X0. \forall X1. (r1\_setfam\_1 X0 X1) \Leftrightarrow (r1\_tarski (k1\_simplex0 X0) (k1\_simplex0 X1))$$