t13_setfam_1 (TMFEdjF9chBnAsJBSX36tebdfc67bPykM39)

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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 $k3\_tarski : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.\forall X1.(X1 = k3\_tarski\ X0) \Leftrightarrow (\forall X2.(X2 \in X1) \Leftrightarrow (\exists X3.(X2 \in X3) \wedge (X3 \in X0))) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.(r1\_tarski\ X0\ X1) \Leftrightarrow (\forall X2.(X2 \in X0) \Rightarrow (X2 \in X1)) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.(r1\_setfam\_1\ X0\ X1) \Leftrightarrow (\forall X2.\neg(X2 \in X0) \wedge (\forall X3.\neg(X3 \in X1) \wedge (r1\_tarski\ X2\ X3))) \tag{3}$$

Theorem 1

$$\forall X0.\forall X1.(r1\_setfam\_1\ X0\ X1) \Rightarrow (r1\_tarski\ (k3\_tarski\ X0)\ (k3\_tarski\ X1))$$