t22_setfam_1 (TMQAw3KSySprwELXtR2rh5GNYjpybduv1Yf)

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Let $r1\_setfam\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4\_setfam\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ X1)) \Leftrightarrow (r1\_tarski\ X0\ X1) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.m1\_subset\_1\ (k6\_subset\_1\ X0\ X1)\ (k1\_zfmisc\_1\ X0) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(X2 = k4\_setfam\_1\ X0\ X1) \Leftrightarrow (\forall X3.\ (X3 \in X2) \Leftrightarrow (\exists X4.\exists X5.(X4 \in X0) \wedge ((X5 \in X1) \wedge (X3 = k6\_subset\_1\ X4\ X5)))) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.(r1\_setfam\_1\ X0\ X1) \Leftrightarrow (\forall X2.\neg(X2 \in X0) \wedge (\forall X3.\neg(X3 \in X1) \wedge (r1\_tarski\ X2\ X3))) \tag{4}$$

Theorem 1 $\forall X0.r1\_setfam\_1\ (k4\_setfam\_1\ X0\ X0)\ X0$.