t126_zfmisc_1 (TMTso7fDpvHz1jMnWrK3hd44UVnHfLxn2G6)

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Let $r1\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3\_tarski : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.\forall X1.(\neg(\neg r1\_xboole\_0\ X0\ X1) \wedge (\forall X2.\neg(X2 \in X0) \wedge (X2 \in X1))) \wedge (\neg(\exists X2.(X2 \in X0) \wedge (X2 \in X1)) \wedge (r1\_xboole\_0\ X0\ X1)) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.(X1 = k3\_tarski\ X0) \Leftrightarrow (\forall X2.(X2 \in X1) \Leftrightarrow (\exists X3.(X2 \in X3) \wedge (X3 \in X0))) \tag{2}$$

Theorem 1

$$\forall X0.\forall X1.(\forall X2.\forall X3.((X2 \in X0) \wedge (X3 \in X1)) \Rightarrow (r1\_xboole\_0\ X2\ X3)) \Rightarrow (r1\_xboole\_0\ (k3\_tarski\ X0)\ (k3\_tarski\ X1))$$