t120_zfmisc_1 (TMQQgjYFxe1gSHfG7f2S5yxNRHDzmug6u27)

October 27, 2020

Let $k4\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.\forall X1.\forall X2.(k4\_xboole\_0\ (k2\_tarski\ X0\ X1)\ X2 = k2\_tarski\ X0\ X1) \Leftrightarrow ((\neg X0 \in X2) \wedge (\neg X1 \in X2)) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(X2 = k4\_xboole\_0\ X0\ X1) \Leftrightarrow (\forall X3.(X3 \in X2) \Leftrightarrow ((X3 \in X0) \wedge (\neg X3 \in X1))) \tag{2}$$

Theorem 1

$$\forall X0.\forall X1.\forall X2.\neg(\neg X0 \in X2) \wedge ((\neg X1 \in X2) \wedge (X2 \neq k4\_xboole\_0\ X2\ (k2\_tarski\ X0\ X1)))$$