

l110\_zfmisc\_1 (TMN-  
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Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_tarski : \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.\neg(r1\_tarski\ X0\ (k2\_zfmisc\_1\ X1\ X2))\wedge((X3 \in X0)\wedge(\forall X4.\forall X5.\neg(X4 \in X1)\wedge((X5 \in X2)\wedge (X3 = k4\_tarski\ X4\ X5)))) \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.(\forall X2.(X2 \in X0)\Leftrightarrow(X2 \in X1))\Rightarrow(X0 = X1) \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.k4\_tarski\ X0\ X1 = k2\_tarski\ (k2\_tarski\ X0\ X1)\ (k1\_tarski\ X0) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.k2\_tarski\ X0\ X1 = k2\_tarski\ X1\ X0 \quad (4)$$

**Theorem 1**

$$\forall X0.\forall X1.\forall X2.\forall X3.\forall X4.\forall X5. ((r1\_tarski\ X0\ (k2\_zfmisc\_1\ X1\ X2))\wedge((r1\_tarski\ X3\ (k2\_zfmisc\_1\ X4\ X5))\wedge(\forall X6.\forall X7.(k4\_tarski\ X6\ X7 \in X0)\Leftrightarrow(k4\_tarski\ X6\ X7 \in X3))))\Rightarrow(X0 = X3)$$