

t149\_zf\_lang1  
(TMbMLcLvb8CfkGrb8sqYT4i8koYF8Yp1FHB)

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Let  $v1\_zf\_lang : \iota \Rightarrow o$  be given. Let  $m2\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k5\_numbers : \iota$  be given. Let  $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zf\_lang : \iota$  be given. Let  $k3\_zf\_lang1 : \iota \Rightarrow \iota$  be given. Let  $k16\_zf\_lang : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_enumset1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_tarski : \iota \Rightarrow \iota$  be given. Let  $k2\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k14\_zf\_lang : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k8\_zf\_lang : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $m1\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. k2\_xboole\_0 (k2\_xboole\_0 X0 X1) X2 = k2\_xboole\_0 X0 (k2\_xboole\_0 X1 X2) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. k1\_enumset1 X0 X1 X2 = k2\_xboole\_0 (k1\_tarski X0) (k2\_tarski X1 X2) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. k2\_tarski X0 X1 = k2\_xboole\_0 (k1\_tarski X0) (k1\_tarski X1) \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0. ((v1\_zf\_lang X0) \wedge (m2\_finseq\_1 X0 k5\_numbers)) \Rightarrow (\forall X1. \\ (m2\_subset\_1 X1 k5\_numbers k1\_zf\_lang) \Rightarrow (\forall X2. (m2\_subset\_1 \\ X2 k5\_numbers k1\_zf\_lang) \Rightarrow (k3\_zf\_lang1 (k14\_zf\_lang X1 X2 X0) = \\ k2\_xboole\_0 (k3\_zf\_lang1 X0) (k2\_tarski X1 X2)))) \quad (4) \end{aligned}$$

Assume the following.

$$\begin{aligned} \forall X0. ((v1\_zf\_lang X0) \wedge (m2\_finseq\_1 X0 k5\_numbers)) \Rightarrow (\forall X1. \\ (m2\_subset\_1 X1 k5\_numbers k1\_zf\_lang) \Rightarrow (k3\_zf\_lang1 (k8\_zf\_lang \\ X1 X0) = k2\_xboole\_0 (k3\_zf\_lang1 X0) (k1\_tarski X1))) \quad (5) \end{aligned}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0 X0)\wedge((\neg v1\_xboole\_0 X1)\wedge(m1\_subset\_1 X1 (k1\_zfmisc\_1 X0))))\Rightarrow(\forall X2.(m2\_subset\_1 X2 X0 X1)\Leftrightarrow(m1\_subset\_1 X2 X1)) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.(m2\_finseq\_1 X1 X0)\Leftrightarrow(m1\_finseq\_1 X1 X0) \quad (7)$$

Assume the following.

$$\neg v1\_xboole\_0 k1\_zf\_lang \quad (8)$$

Assume the following.

$$m1\_subset\_1 k1\_zf\_lang (k1\_zfmisc\_1 k5\_numbers) \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((m1\_subset\_1 X0 k1\_zf\_lang)\wedge((m1\_subset\_1 X1 k1\_zf\_lang)\wedge((v1\_zf\_lang X2)\wedge(m1\_finseq\_1 X2 k5\_numbers))))\Rightarrow((v1\_zf\_lang (k14\_zf\_lang X0 X1 X2))\wedge(m2\_finseq\_1 (k14\_zf\_lang X0 X1 X2) k5\_numbers)) \quad (10)$$

Assume the following.

$$\forall X0.(m2\_subset\_1 X0 k5\_numbers k1\_zf\_lang)\Rightarrow(\forall X1.(m2\_subset\_1 X1 k5\_numbers k1\_zf\_lang)\Rightarrow(\forall X2.(m2\_subset\_1 X2 k5\_numbers k1\_zf\_lang)\Rightarrow(\forall X3.((v1\_zf\_lang X3)\wedge(m2\_finseq\_1 X3 k5\_numbers))\Rightarrow(k16\_zf\_lang X0 X1 X2 X3 = k8\_zf\_lang X0 (k14\_zf\_lang X1 X2 X3)))))) \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.k2\_xboole\_0 X0 X1 = k2\_xboole\_0 X1 X0 \quad (12)$$

Assume the following.

$$\forall X0.(v1\_xboole\_0 X0)\Rightarrow(\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 X0))\Rightarrow(v1\_xboole\_0 X1)) \quad (13)$$

**Theorem 1**

$$\forall X0.((v1\_zf\_lang X0)\wedge(m2\_finseq\_1 X0 k5\_numbers))\Rightarrow(\forall X1.(m2\_subset\_1 X1 k5\_numbers k1\_zf\_lang)\Rightarrow(\forall X2.(m2\_subset\_1 X2 k5\_numbers k1\_zf\_lang)\Rightarrow(\forall X3.(m2\_subset\_1 X3 k5\_numbers k1\_zf\_lang)\Rightarrow(k3\_zf\_lang1 (k16\_zf\_lang X1 X2 X3 X0) = k2\_xboole\_0 (k3\_zf\_lang1 X0) (k1\_enumset1 X1 X2 X3))))))$$