

t147\_zf\_lang1  
(TMad1MqsY56ieUMesSByzr42zSWusfLcZve)

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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  $k14\_zf\_lang : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_tarski : \iota \Rightarrow \iota$  be given. 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.

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

Assume the following.

$$\forall X0.((v1\_zf\_lang X0) \wedge (m2\_finseq\_1 X0 k5\_numbers)) \Rightarrow (\forall X1.(m2\_subset\_1 X1 k5\_numbers k1\_zf\_lang) \Rightarrow (k3\_zf\_lang1 (k8\_zf\_lang X1 X0) = k2\_xboole\_0 (k3\_zf\_lang1 X0) (k1\_tarski X1))) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0 X0) \wedge ((\neg v1\_xboole\_0 X1) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 X0)))) \Rightarrow (\forall X2.(m2\_subset\_1 X2 X0 X1) \Leftrightarrow (m1\_subset\_1 X2 X1)) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.(m2\_finseq\_1 X1 X0) \Leftrightarrow (m1\_finseq\_1 X1 X0) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.((m1\_subset\_1 X0 k1\_zf\_lang) \wedge ((v1\_zf\_lang X1) \wedge (m1\_finseq\_1 X1 k5\_numbers))) \Rightarrow (v1\_zf\_lang (k8\_zf\_lang X0 X1)) \quad (6)$$

Assume the following.

$$\neg v1\_xboole\_0 \ k1\_zf\_lang \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.((m1\_subset\_1 \ X0 \ k1\_zf\_lang)\wedge(m1\_finseq\_1 \ X1 \ k5\_numbers))\Rightarrow(m2\_finseq\_1 \ (k8\_zf\_lang \ X0 \ X1) \ k5\_numbers) \quad (8)$$

Assume the following.

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

Assume the following.

$$\begin{aligned} \forall X0.(m2\_subset\_1 \ X0 \ k5\_numbers \ k1\_zf\_lang)\Rightarrow(\forall X1. \\ (m2\_subset\_1 \ X1 \ k5\_numbers \ k1\_zf\_lang)\Rightarrow(\forall X2.((v1\_zf\_lang \\ X2)\wedge(m2\_finseq\_1 \ X2 \ k5\_numbers))\Rightarrow(k14\_zf\_lang \ X0 \ X1 \ X2 = k8\_zf\_lang \\ X0 \ (k8\_zf\_lang \ X1 \ X2)))) \quad (10) \end{aligned}$$

Assume the following.

$$\forall X0.\forall X1.k2\_xboole\_0 \ X0 \ X1 = k2\_xboole\_0 \ X1 \ X0 \quad (11)$$

Assume the following.

$$\forall X0.(v1\_xboole\_0 \ X0)\Rightarrow(\forall X1.(m1\_subset\_1 \ X1 \ (k1\_zfmisc\_1 \ X0))\Rightarrow(v1\_xboole\_0 \ X1)) \quad (12)$$

**Theorem 1**

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