

# t97\_zf\_lang1 (TMab- HjQ2aPTi7NxVGR7tU2dgYRmBfBhw9JC)

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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  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $r2\_zf\_model : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k16\_zf\_lang : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  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  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  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.

$$\begin{aligned} & \forall X0.((v1\_zf\_lang X0) \wedge (m2\_finseq\_1 X0 k5\_numbers)) \Rightarrow (\forall X1. \\ & (m2\_subset\_1 X1 k5\_numbers k1\_zf\_lang) \Rightarrow (\forall X2.(m2\_subset\_1 \\ & X2 k5\_numbers k1\_zf\_lang) \Rightarrow (\forall X3.(\neg v1\_xboole\_0 X3) \Rightarrow ((r2\_zf\_model \\ & X3 X0) \Leftrightarrow (r2\_zf\_model X3 (k14\_zf\_lang X1 X2 X0)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1\_zf\_lang X0) \wedge (m2\_finseq\_1 X0 k5\_numbers)) \Rightarrow (\forall X1. \\ & (m2\_subset\_1 X1 k5\_numbers k1\_zf\_lang) \Rightarrow (\forall X2.(\neg v1\_xboole\_0 \\ & X2) \Rightarrow ((r2\_zf\_model X2 (k8\_zf\_lang X1 X0)) \Leftrightarrow (r2\_zf\_model X2 X0)))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v1\_xboole\_0 X0) \wedge ((\neg v1\_xboole\_0 X1) \wedge \\ & (m1\_subset\_1 X1 (k1\_zfmisc\_1 X0)))) \Rightarrow (\forall X2.(m2\_subset\_1 \\ & X2 X0 X1) \Leftrightarrow (m1\_subset\_1 X2 X1)) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. (m2\_finseq\_1 X1 X0) \Leftrightarrow (m1\_finseq\_1 X1 X0) \quad (4)$$

Assume the following.

$$\neg v1\_xboole\_0 k1\_zf\_lang \quad (5)$$

Assume the following.

$$m1\_subset\_1 k1\_zf\_lang (k1\_zfmisc\_1 k5\_numbers) \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. ((m1\_subset\_1 X0 k1\_zf\_lang) \wedge \\ & ((m1\_subset\_1 X1 k1\_zf\_lang) \wedge ((v1\_zf\_lang X2) \wedge (m1\_finseq\_1 \\ & X2 k5\_numbers)))) \Rightarrow ((v1\_zf\_lang (k14\_zf\_lang X0 X1 X2)) \wedge (m2\_finseq\_1 \\ & (k14\_zf\_lang X0 X1 X2) k5\_numbers)) \end{aligned} \quad (7)$$

Assume the following.

$$\begin{aligned} & \forall X0. (m2\_subset\_1 X0 k5\_numbers k1\_zf\_lang) \Rightarrow (\forall X1. \\ & (m2\_subset\_1 X1 k5\_numbers k1\_zf\_lang) \Rightarrow (\forall X2. (m2\_subset\_1 \\ & X2 k5\_numbers k1\_zf\_lang) \Rightarrow (\forall X3. ((v1\_zf\_lang X3) \wedge (m2\_finseq\_1 \\ & X3 k5\_numbers)) \Rightarrow (k16\_zf\_lang X0 X1 X2 X3 = k8\_zf\_lang X0 (k14\_zf\_lang \\ & X1 X2 X3)))))) \end{aligned} \quad (8)$$

Assume the following.

$$\forall X0. (v1\_xboole\_0 X0) \Rightarrow (\forall X1. (m1\_subset\_1 X1 (k1\_zf\_misc\_1 X0)) \Rightarrow (v1\_xboole\_0 X1)) \quad (9)$$

**Theorem 1**

$$\begin{aligned} & \forall X0. ((v1\_zf\_lang X0) \wedge (m2\_finseq\_1 X0 k5\_numbers)) \Rightarrow (\forall X1. \\ & (m2\_subset\_1 X1 k5\_numbers k1\_zf\_lang) \Rightarrow (\forall X2. (m2\_subset\_1 \\ & X2 k5\_numbers k1\_zf\_lang) \Rightarrow (\forall X3. (m2\_subset\_1 X3 k5\_numbers \\ & k1\_zf\_lang) \Rightarrow (\forall X4. (\neg v1\_xboole\_0 X4) \Rightarrow ((r2\_zf\_model X4 \\ & X0) \Leftrightarrow (r2\_zf\_model X4 (k16\_zf\_lang X1 X2 X3 X0)))))) \end{aligned}$$