

t176\_zf\_lang1  
(TMSy94SQffdfCnFGF6knLEUBT3pmEYjwUoh)

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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  $v10\_zf\_lang : \iota \Rightarrow o$  be given. Let  $k6\_zf\_lang1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k12\_zf\_lang : \iota \Rightarrow \iota \Rightarrow \iota$  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.

$$\begin{aligned} & \forall X0.((v1\_zf\_lang X0) \wedge (m2\_finseq\_1 X0 k5\_numbers)) \Rightarrow (\forall X1. \\ & \quad ((v1\_zf\_lang X1) \wedge (m2\_finseq\_1 X1 k5\_numbers)) \Rightarrow (\forall X2.( \\ & \quad \quad (v1\_zf\_lang X2) \wedge (m2\_finseq\_1 X2 k5\_numbers)) \Rightarrow (\forall X3.( \\ & \quad \quad \quad v1\_zf\_lang X3) \wedge (m2\_finseq\_1 X3 k5\_numbers)) \Rightarrow (\forall X4.(m2\_subset\_1 \\ & \quad \quad \quad X4 k5\_numbers k1\_zf\_lang) \Rightarrow (\forall X5.(m2\_subset\_1 X5 k5\_numbers \\ & \quad \quad \quad k1\_zf\_lang) \Rightarrow ((k12\_zf\_lang X0 X1 = k6\_zf\_lang1 (k12\_zf\_lang X2 \\ & \quad \quad \quad X3) X4 X5) \Leftrightarrow ((X0 = k6\_zf\_lang1 X2 X4 X5) \wedge (X1 = k6\_zf\_lang1 X3 X4 X5))))))))) \\ & \tag{1} \end{aligned}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v1\_xboole\_0 X0) \wedge ((\neg v1\_xboole\_0 X1) \wedge \\ & \quad (m1\_subset\_1 X1 (k1\_zfmisc\_1 X0)))) \Rightarrow (\forall X2.(m2\_subset\_1 \\ & \quad \quad X2 X0 X1) \Leftrightarrow (m1\_subset\_1 X2 X1)) \\ & \tag{2} \end{aligned}$$

Assume the following.

$$\forall X0. \forall X1. (m2\_finseq\_1 X1 X0) \Leftrightarrow (m1\_finseq\_1 X1 X0) \tag{3}$$

Assume the following.

$$\neg v1\_xboole\_0 k1\_zf\_lang \tag{4}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (((v1\_zf\_lang X0) \wedge (m1\_finseq\_1 \\ & \quad X0 k5\_numbers)) \wedge ((m1\_subset\_1 X1 k1\_zf\_lang) \wedge (m1\_subset\_1 X2 \\ & \quad k1\_zf\_lang))) \Rightarrow ((v1\_zf\_lang (k6\_zf\_lang1 X0 X1 X2)) \wedge (m2\_finseq\_1 \\ & \quad \quad (k6\_zf\_lang1 X0 X1 X2) k5\_numbers)) \\ & \tag{5} \end{aligned}$$

Assume the following.

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

Assume the following.

$$\begin{aligned} \forall X0.((v1\_zf\_lang \ X0) \wedge (m2\_finseq\_1 \ X0 \ k5\_numbers)) \Rightarrow (( \\ v10\_zf\_lang \ X0) \Leftrightarrow (\exists X1.((v1\_zf\_lang \ X1) \wedge (m2\_finseq\_1 \ X1 \\ k5\_numbers)) \wedge (\exists X2.((v1\_zf\_lang \ X2) \wedge (m2\_finseq\_1 \ X2 \ k5\_numbers)) \wedge \\ (X0 = k12\_zf\_lang \ X1 \ X2)))) \end{aligned} \quad (7)$$

Assume the following.

$$\forall X0.(v1\_xboole\_0 \ X0) \Rightarrow (\forall X1.(m1\_subset\_1 \ X1 \ (k1\_zfmisc\_1 \ X0)) \Rightarrow (v1\_xboole\_0 \ X1)) \quad (8)$$

**Theorem 1**

$$\begin{aligned} \forall X0.((v1\_zf\_lang \ X0) \wedge (m2\_finseq\_1 \ X0 \ k5\_numbers)) \Rightarrow (\forall X1. \\ (m2\_subset\_1 \ X1 \ k5\_numbers \ k1\_zf\_lang) \Rightarrow (\forall X2.(m2\_subset\_1 \\ X2 \ k5\_numbers \ k1\_zf\_lang) \Rightarrow ((v10\_zf\_lang \ X0) \Rightarrow (v10\_zf\_lang \ (k6\_zf\_lang1 \\ X0 \ X1 \ X2)))))) \end{aligned}$$