

t91\_zf\_lang1  
(TMKs7pR2BZwFQQGEcJwyXuYK6xeMVDZi6HP)

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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  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zf\_lang : \iota$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v10\_zf\_lang : \iota \Rightarrow o$  be given. Let  $r1\_zf\_model : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k27\_zf\_lang : \iota \Rightarrow \iota$  be given. Let  $k28\_zf\_lang : \iota \Rightarrow \iota$  be given. Let  $k12\_zf\_lang : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0.((v1\_zf\_lang X0) \wedge (m2\_finseq\_1 X0 k5\_numbers)) \Rightarrow (\forall X1. \\ & ((v1\_zf\_lang X1) \wedge (m2\_finseq\_1 X1 k5\_numbers)) \Rightarrow ((k27\_zf\_lang \\ & (k12\_zf\_lang X0 X1) = X0) \wedge (k28\_zf\_lang (k12\_zf\_lang X0 X1) = X1))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1\_zf\_lang X0) \wedge (m2\_finseq\_1 X0 k5\_numbers)) \Rightarrow (( \\ & v10\_zf\_lang X0) \Rightarrow (X0 = k12\_zf\_lang (k27\_zf\_lang X0) (k28\_zf\_lang \\ & X0))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0.(\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1.((v1\_funct\_1 X1) \wedge ( \\ & (v1\_funct\_2 X1 k1\_zf\_lang X0) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 \\ & k1\_zf\_lang X0)))))) \Rightarrow (\forall X2.((v1\_zf\_lang X2) \wedge (m2\_finseq\_1 \\ & X2 k5\_numbers)) \Rightarrow (\forall X3.((v1\_zf\_lang X3) \wedge (m2\_finseq\_1 X3 \\ & k5\_numbers)) \Rightarrow ((r1\_zf\_model X0 X1 (k12\_zf\_lang X2 X3)) \Leftrightarrow ((r1\_zf\_model \\ & X0 X1 X2) \Leftrightarrow (r1\_zf\_model X0 X1 X3)))))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1\_zf\_lang X0) \wedge (m2\_finseq\_1 X0 k5\_numbers)) \Rightarrow (( \\ & v10\_zf\_lang X0) \Leftrightarrow (\exists X1.((v1\_zf\_lang X1) \wedge (m2\_finseq\_1 X1 \\ & k5\_numbers)) \wedge (\exists X2.((v1\_zf\_lang X2) \wedge (m2\_finseq\_1 X2 k5\_numbers)) \wedge \\ & (X0 = k12\_zf\_lang X1 X2)))) \end{aligned} \quad (4)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.((v1\_zf\_lang X0) \wedge (m2\_finseq\_1 X0 k5\_numbers)) \Rightarrow (\forall X1. \\ & \quad (\neg v1\_xboole\_0 X1) \Rightarrow (\forall X2.((v1\_funct\_1 X2) \wedge ((v1\_funct\_2 \\ X2 k1\_zf\_lang X1) \wedge (m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 k1\_zf\_lang \\ X1)))))) \Rightarrow ((v10\_zf\_lang X0) \Rightarrow ((r1\_zf\_model X1 X2 X0) \Leftrightarrow ((r1\_zf\_model \\ X1 X2 (k27\_zf\_lang X0)) \Leftrightarrow (r1\_zf\_model X1 X2 (k28\_zf\_lang X0))))))) \end{aligned}$$