

t58\_zf\_lang1

(TMbD7QeqeRMxXdnYXoCEj5VswAUc5rEfmPu)

October 27, 2020

Let  $m2\_subset.1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k5\_numbers : \iota$  be given. Let  $k1\_zf\_lang : \iota$  be given. Let  $k2\_zf\_model : \iota \Rightarrow \iota$  be given. Let  $k4\_zf\_lang : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_zf\_lang : \iota \Rightarrow o$  be given. Let  $m2\_finseq.1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v2\_zf\_lang : \iota \Rightarrow o$  be given. Let  $v3\_zf\_lang : \iota \Rightarrow o$  be given. Let  $k5\_zf\_lang : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v4\_zf\_lang : \iota \Rightarrow o$  be given. Let  $k6\_zf\_lang : \iota \Rightarrow \iota$  be given. Let  $v5\_zf\_lang : \iota \Rightarrow o$  be given. Let  $k7\_zf\_lang : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v6\_zf\_lang : \iota \Rightarrow o$  be given. Let  $k8\_zf\_lang : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k18\_zf\_lang : \iota \Rightarrow \iota$  be given. Let  $k19\_zf\_lang : \iota \Rightarrow \iota$  be given. Let  $k20\_zf\_lang : \iota \Rightarrow \iota$  be given. Let  $k4\_subset.1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k21\_zf\_lang : \iota \Rightarrow \iota$  be given. Let  $k22\_zf\_lang : \iota \Rightarrow \iota$  be given. Let  $k7\_subset.1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k24\_zf\_lang : \iota \Rightarrow \iota$  be given. Let  $k1\_tarski : \iota \Rightarrow \iota$  be given. Let  $k23\_zf\_lang : \iota \Rightarrow \iota$  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. Assume the following.

$$\begin{aligned}
& \forall X0.((v1\_zf\_lang X0) \wedge (m2\_finseq\_1 X0 k5\_numbers)) \Rightarrow (( \\
& \neg(v2\_zf\_lang X0) \wedge (\forall X1.(m2\_subset\_1 X1 k5\_numbers k1\_zf\_lang) \Rightarrow \\
& (\forall X2.(m2\_subset\_1 X2 k5\_numbers k1\_zf\_lang) \Rightarrow (X0 \neq k4\_zf\_lang \\
& X1 X2)))) \wedge (((\exists X1.(m2\_subset\_1 X1 k5\_numbers k1\_zf\_lang) \wedge \\
& (\exists X2.(m2\_subset\_1 X2 k5\_numbers k1\_zf\_lang) \wedge (X0 = k4\_zf\_lang \\
& X1 X2))) \Rightarrow (v2\_zf\_lang X0)) \wedge ((\neg(v3\_zf\_lang X0) \wedge (\forall X1.(m2\_subset\_1 \\
& X1 k5\_numbers k1\_zf\_lang) \Rightarrow (\forall X2.(m2\_subset\_1 X2 k5\_numbers \\
& k1\_zf\_lang) \Rightarrow (X0 \neq k5\_zf\_lang X1 X2)))) \wedge (((\exists X1.(m2\_subset\_1 \\
& X1 k5\_numbers k1\_zf\_lang) \wedge (\exists X2.(m2\_subset\_1 X2 k5\_numbers \\
& k1\_zf\_lang) \wedge (X0 = k5\_zf\_lang X1 X2))) \Rightarrow (v3\_zf\_lang X0)) \wedge ((\neg(v4\_zf\_lang \\
& X0) \wedge (\forall X1.((v1\_zf\_lang X1) \wedge (m2\_finseq\_1 X1 k5\_numbers)) \Rightarrow \\
& (X0 \neq k6\_zf\_lang X1))) \wedge (((\exists X1.((v1\_zf\_lang X1) \wedge (m2\_finseq\_1 \\
& X1 k5\_numbers)) \wedge (X0 = k6\_zf\_lang X1)) \Rightarrow (v4\_zf\_lang X0)) \wedge ((\neg(v5\_zf\_lang \\
& X0) \wedge (\forall X1.((v1\_zf\_lang X1) \wedge (m2\_finseq\_1 X1 k5\_numbers)) \Rightarrow \\
& (\forall X2.((v1\_zf\_lang X2) \wedge (m2\_finseq\_1 X2 k5\_numbers)) \Rightarrow ( \\
& X0 \neq k7\_zf\_lang X1 X2)))) \wedge (((\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 = k7\_zf\_lang X1 X2))) \Rightarrow (v5\_zf\_lang X0)) \wedge ((\neg( \\
& v6\_zf\_lang X0) \wedge (\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 ( \\
& X0 \neq k8\_zf\_lang X1 X2)))) \wedge (((\exists X1.(m2\_subset\_1 X1 k5\_numbers \\
& k1\_zf\_lang) \wedge (\exists X2.((v1\_zf\_lang X2) \wedge (m2\_finseq\_1 X2 k5\_numbers)) \wedge \\
& (X0 = k8\_zf\_lang X1 X2))) \Rightarrow (v6\_zf\_lang X0)))))))))
\end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((v1\_zf\_lang X0) \wedge (m2\_finseq\_1 X0 k5\_numbers)) \Rightarrow (( \\
& (v2\_zf\_lang X0) \Rightarrow (k2\_zf\_model X0 = k2\_tarski (k18\_zf\_lang X0) ( \\
& k19\_zf\_lang X0))) \wedge (((v3\_zf\_lang X0) \Rightarrow (k2\_zf\_model X0 = k2\_tarski \\
& (k18\_zf\_lang X0) (k19\_zf\_lang X0))) \wedge (((v4\_zf\_lang X0) \Rightarrow (k2\_zf\_model \\
& X0 = k2\_zf\_model (k20\_zf\_lang X0))) \wedge (((v5\_zf\_lang X0) \Rightarrow (k2\_zf\_model \\
& X0 = k4\_subset\_1 k1\_zf\_lang (k2\_zf\_model (k21\_zf\_lang X0)) (k2\_zf\_model \\
& (k22\_zf\_lang X0)))) \wedge (((v6\_zf\_lang X0) \Rightarrow (k2\_zf\_model X0 = k7\_subset\_1 \\
& k1\_zf\_lang (k2\_zf\_model (k24\_zf\_lang X0)) (k1\_tarski (k23\_zf\_lang \\
& X0)))))))))
\end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(m2\_subset\_1 X0 k5\_numbers k1\_zf\_lang) \Rightarrow (\forall X1. \\
& (m2\_subset\_1 X1 k5\_numbers k1\_zf\_lang) \Rightarrow ((k18\_zf\_lang (k4\_zf\_lang \\
& X0 X1) = X0) \wedge (k19\_zf\_lang (k4\_zf\_lang X0 X1) = X1)))
\end{aligned} \tag{3}$$

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.

$$\forall X0.\forall X1.((m1\_subset\_1 X0 k1\_zf\_lang)\wedge(m1\_subset\_1 X1 k1\_zf\_lang))\Rightarrow(v1\_zf\_lang (k4\_zf\_lang X0 X1)) \quad (5)$$

Assume the following.

$$\neg v1\_xboole\_0 k1\_zf\_lang \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.((m1\_subset\_1 X0 k1\_zf\_lang)\wedge(m1\_subset\_1 X1 k1\_zf\_lang))\Rightarrow(m2\_finseq\_1 (k4\_zf\_lang X0 X1) k5\_numbers) \quad (7)$$

Assume the following.

$$m1\_subset\_1 k1\_zf\_lang (k1\_zfmisc\_1 k5\_numbers) \quad (8)$$

Assume the following.

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

**Theorem 1**

$$\forall X0.(m2\_subset\_1 X0 k5\_numbers k1\_zf\_lang)\Rightarrow(\forall X1.(m2\_subset\_1 X1 k5\_numbers k1\_zf\_lang)\Rightarrow(k2\_zf\_model (k4\_zf\_lang X0 X1) = k2\_tarski X0 X1))$$