# t12_zf_lang1 (TMQJWe-qUvpzm5rnNEsvxuSmfNuthWNeYaZF)

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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 $v11\_zf\_lang : \iota \Rightarrow o$ be given. Let $k15\_zf\_lang : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k23\_zf\_lang : \iota \Rightarrow \iota$ be given. Let $k24\_zf\_lang : \iota \Rightarrow \iota$ be given. Let $k13\_zf\_lang : \iota \Rightarrow \iota \Rightarrow \iota$ 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.

$$\forall X0.((v1\_zf\_lang\ X0) \wedge (m2\_finseq\_1\ X0\ k5\_numbers)) \Rightarrow (\forall X1.\ (m2\_subset\_1\ X1\ k5\_numbers\ k1\_zf\_lang) \Rightarrow ((k23\_zf\_lang\ (k13\_zf\_lang\ X1\ X0) = X1) \wedge (k24\_zf\_lang\ (k13\_zf\_lang\ X1\ X0) = X0))) \tag{1}$$

Assume the following.

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

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.

$$m1\_subset\_1\ k1\_zf\_lang\ (k1\_zfmisc\_1\ k5\_numbers) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.((m1\_subset\_1\ X0\ k1\_zf\_lang) \wedge ((v1\_zf\_lang\ X1) \wedge (m1\_finseq\_1\ X1\ k5\_numbers))) \Rightarrow ((v1\_zf\_lang\ (k13\_zf\_lang\ X0\ X1)) \wedge (m2\_finseq\_1\ (k13\_zf\_lang\ X0\ X1)\ k5\_numbers)) \tag{6}$$

Assume the following.

$$\forall X0.(m2\_subset\_1\ X0\ k5\_numbers\ k1\_zf\_lang)\Rightarrow(\forall X1.\ (m2\_subset\_1\ X1\ k5\_numbers\ k1\_zf\_lang)\Rightarrow(\forall X2.((v1\_zf\_lang\ X2)\wedge(m2\_finseq\_1\ X2\ k5\_numbers))\Rightarrow(k15\_zf\_lang\ X0\ X1\ X2 = k13\_zf\_lang\ X0\ (k13\_zf\_lang\ X1\ X2)))) \tag{7}$$

Assume the following.

$$\forall X0.((v1\_zf\_lang\ X0)\wedge(m2\_finseq\_1\ X0\ k5\_numbers))\Rightarrow(( v11\_zf\_lang\ X0)\Leftrightarrow(\exists X1.(m2\_subset\_1\ X1\ k5\_numbers\ k1\_zf\_lang)\wedge (\exists X2.((v1\_zf\_lang\ X2)\wedge(m2\_finseq\_1\ X2\ k5\_numbers))\wedge( X0 = k13\_zf\_lang\ X1\ X2)))) \tag{8}$$

Assume the following.

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

**Theorem 1**

$$\forall X0.((v1\_zf\_lang\ X0)\wedge(m2\_finseq\_1\ X0\ k5\_numbers))\Rightarrow(\forall X1.\ (m2\_subset\_1\ X1\ k5\_numbers\ k1\_zf\_lang)\Rightarrow(\forall X2.(m2\_subset\_1\ X2\ k5\_numbers\ k1\_zf\_lang)\Rightarrow((v11\_zf\_lang\ (k15\_zf\_lang\ X1\ X2\ X0))\wedge ((k23\_zf\_lang\ (k15\_zf\_lang\ X1\ X2\ X0) = X1)\wedge(k24\_zf\_lang\ (k15\_zf\_lang\ X1\ X2\ X0) = k13\_zf\_lang\ X2\ X0)))))$$