t172_zf_lang1 (TMdLnv8isw6utzQzQJWEQxhZZeK8kd5hHej)

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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 $v5\_zf\_lang : \iota \Rightarrow o$ be given. Let $k21\_zf\_lang : \iota \Rightarrow \iota$ be given. Let $k6\_zf\_lang1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k22\_zf\_lang : \iota \Rightarrow \iota$ be given. Let $k7\_zf\_lang : \iota \Rightarrow \iota \Rightarrow \iota$ 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.

$$\forall X0.((v1\_zf\_lang\ X0) \wedge (m2\_finseq\_1\ X0\ k5\_numbers)) \Rightarrow ((v5\_zf\_lang\ X0) \Rightarrow (X0 = k7\_zf\_lang\ (k21\_zf\_lang\ X0)\ (k22\_zf\_lang\ X0))) \tag{1}$$

Assume the following.

$$\forall X0.((v1\_zf\_lang\ X0) \wedge (m2\_finseq\_1\ X0\ k5\_numbers)) \Rightarrow (\forall X1. (m2\_subset\_1\ X1\ k5\_numbers\ k1\_zf\_lang) \Rightarrow (\forall X2.(m2\_subset\_1\ X2\ k5\_numbers\ k1\_zf\_lang) \Rightarrow ((v5\_zf\_lang\ X0) \Leftrightarrow (v5\_zf\_lang\ (k6\_zf\_lang1\ X0\ X1\ X2))))) \tag{2}$$

Assume the following.

$$\forall X0.((v1\_zf\_lang\ X0) \wedge (m2\_finseq\_1\ X0\ k5\_numbers)) \Rightarrow (\forall X1. ((v1\_zf\_lang\ X1) \wedge (m2\_finseq\_1\ X1\ k5\_numbers)) \Rightarrow (\forall X2.((v1\_zf\_lang\ X2) \wedge (m2\_finseq\_1\ X2\ k5\_numbers)) \Rightarrow (\forall X3.((v1\_zf\_lang\ X3) \wedge (m2\_finseq\_1\ X3\ k5\_numbers)) \Rightarrow (\forall X4.(m2\_subset\_1\ X4\ k5\_numbers\ k1\_zf\_lang) \Rightarrow (\forall X5.(m2\_subset\_1\ X5\ k5\_numbers\ k1\_zf\_lang) \Rightarrow ((k7\_zf\_lang\ X0\ X1 = k6\_zf\_lang1\ (k7\_zf\_lang\ X2\ X3)\ X4\ X5) \Leftrightarrow ((X0 = k6\_zf\_lang1\ X2\ X4\ X5) \wedge (X1 = k6\_zf\_lang1\ X3\ X4\ X5)))))))) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0\ X0) \wedge ((\neg v1\_xboole\_0\ X1) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X0)))) \Rightarrow (\forall X2.(m2\_subset\_1\ X2\ X0\ X1) \Leftrightarrow (m1\_subset\_1\ X2\ X1)) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.(m2\_finseq\_1\ X1\ X0)\Leftrightarrow(m1\_finseq\_1\ X1\ X0) \tag{5}$$

Assume the following.

$$\neg v1\_xboole\_0\ k1\_zf\_lang \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(((v1\_zf\_lang\ X0)\wedge(m1\_finseq\_1\ X0\ k5\_numbers))\wedge((m1\_subset\_1\ X1\ k1\_zf\_lang)\wedge(m1\_subset\_1\ X2\ k1\_zf\_lang)))\Rightarrow((v1\_zf\_lang\ (k6\_zf\_lang1\ X0\ X1\ X2))\wedge(m2\_finseq\_1\ (k6\_zf\_lang1\ X0\ X1\ X2)\ k5\_numbers)) \tag{7}$$

Assume the following.

$$\forall X0.((v1\_zf\_lang\ X0)\wedge(m1\_finseq\_1\ X0\ k5\_numbers))\Rightarrow((v1\_zf\_lang\ (k22\_zf\_lang\ X0))\wedge(m2\_finseq\_1\ (k22\_zf\_lang\ X0)\ k5\_numbers)) \tag{8}$$

Assume the following.

$$\forall X0.((v1\_zf\_lang\ X0)\wedge(m1\_finseq\_1\ X0\ k5\_numbers))\Rightarrow((v1\_zf\_lang\ (k21\_zf\_lang\ X0))\wedge(m2\_finseq\_1\ (k21\_zf\_lang\ X0)\ k5\_numbers)) \tag{9}$$

Assume the following.

$$m1\_subset\_1\ k1\_zf\_lang\ (k1\_zfmisc\_1\ k5\_numbers) \tag{10}$$

Assume the following.

$$\forall X0.(v1\_xboole\_0\ X0)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X0))\Rightarrow(v1\_xboole\_0\ X1)) \tag{11}$$

Theorem 1

$$\forall X0.((v1\_zf\_lang\ X0)\wedge(m2\_finseq\_1\ X0\ k5\_numbers))\Rightarrow(\forall X1.(m2\_subset\_1\ X1\ k5\_numbers\ k1\_zf\_lang)\Rightarrow(\forall X2.(m2\_subset\_1\ X2\ k5\_numbers\ k1\_zf\_lang)\Rightarrow((v5\_zf\_lang\ X0)\Rightarrow((k21\_zf\_lang\ (k6\_zf\_lang1\ X0\ X1\ X2) = k6\_zf\_lang1\ (k21\_zf\_lang\ X0)\ X1\ X2)\wedge(k22\_zf\_lang\ (k6\_zf\_lang1\ X0\ X1\ X2) = k6\_zf\_lang1\ (k22\_zf\_lang\ X0)\ X1\ X2))))))$$