t5_zf_lang (TMN4gsMEgJiq3LvYzANw2jYbHo9YHBKmF63)

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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 $v2\_zf\_lang : \iota \Rightarrow o$ be given. Let $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_zf\_lang : \iota$ be given. Let $k4\_zf\_lang : \iota \Rightarrow \iota \Rightarrow \iota$ 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. Assume the following.

$$\forall X0.((v1\_zf\_lang\ X0) \wedge (m2\_finseq\_1\ X0\ k5\_numbers)) \Rightarrow ((v6\_zf\_lang\ X0) \Leftrightarrow (\exists X1.(m2\_subset\_1\ X1\ k5\_numbers\ k1\_zf\_lang) \wedge (\exists X2.((v1\_zf\_lang\ X2) \wedge (m2\_finseq\_1\ X2\ k5\_numbers)) \wedge (X0 = k8\_zf\_lang\ X1\ X2)))) \tag{1}$$

Assume the following.

$$\forall X0.((v1\_zf\_lang\ X0) \wedge (m2\_finseq\_1\ X0\ k5\_numbers)) \Rightarrow ((v5\_zf\_lang\ X0) \Leftrightarrow (\exists X1.((v1\_zf\_lang\ X1) \wedge (m2\_finseq\_1\ X1\ k5\_numbers)) \wedge (\exists X2.((v1\_zf\_lang\ X2) \wedge (m2\_finseq\_1\ X2\ k5\_numbers)) \wedge (X0 = k7\_zf\_lang\ X1\ X2)))) \tag{2}$$

Assume the following.

$$\forall X0.((v1\_zf\_lang\ X0) \wedge (m2\_finseq\_1\ X0\ k5\_numbers)) \Rightarrow ((v4\_zf\_lang\ X0) \Leftrightarrow (\exists X1.((v1\_zf\_lang\ X1) \wedge (m2\_finseq\_1\ X1\ k5\_numbers)) \wedge (X0 = k6\_zf\_lang\ X1))) \tag{3}$$

Assume the following.

$$\forall X0.((v1\_zf\_lang\ X0) \wedge (m2\_finseq\_1\ X0\ k5\_numbers)) \Rightarrow ((v3\_zf\_lang\ X0) \Leftrightarrow (\exists X1.(m2\_subset\_1\ X1\ k5\_numbers\ k1\_zf\_lang) \wedge (\exists X2.(m2\_subset\_1\ X2\ k5\_numbers\ k1\_zf\_lang) \wedge (X0 = k5\_zf\_lang\ X1\ X2)))) \tag{4}$$

Assume the following.

$$\forall X0.((v1\_zf\_lang\ X0)\wedge(m2\_finseq\_1\ X0\ k5\_numbers))\Rightarrow((v2\_zf\_lang\ X0)\Leftrightarrow(\exists X1.(m2\_subset\_1\ X1\ k5\_numbers\ k1\_zf\_lang)\wedge (\exists X2.(m2\_subset\_1\ X2\ k5\_numbers\ k1\_zf\_lang)\wedge(X0 = k4\_zf\_lang\ X1\ X2)))) \tag{5}$$

Theorem 1

$$\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)))))))))))$$