

t42\_zf\_lang  
(TMJ41qosi9zpRQRHP1DtUFjbo3ejJgmDfd3)

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Let  $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k5\_numbers : \iota$  be given. Let  $k1\_zf\_lang : \iota$  be given. Let  $v1\_zf\_lang : \iota \Rightarrow o$  be given. Let  $m2\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v6\_zf\_lang : \iota \Rightarrow o$  be given. Let  $k23\_zf\_lang : \iota \Rightarrow \iota$  be given. Let  $k8\_zf\_lang : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k24\_zf\_lang : \iota \Rightarrow \iota$  be given. Let  $v11\_zf\_lang : \iota \Rightarrow o$  be given. Let  $k13\_zf\_lang : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0.(m2\_finseq\_1 X0 k5\_numbers) \Rightarrow (\forall X1.(m2\_finseq\_1 \\ & X1 k5\_numbers) \Rightarrow (\forall X2.(m2\_subset\_1 X2 k5\_numbers k1\_zf\_lang) \Rightarrow \\ & (\forall X3.(m2\_subset\_1 X3 k5\_numbers k1\_zf\_lang) \Rightarrow ((k8\_zf\_lang \\ & X2 X0 = k8\_zf\_lang X3 X1) \Rightarrow ((X2 = X3) \wedge (X0 = X1)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1\_zf\_lang X0) \wedge (m2\_finseq\_1 X0 k5\_numbers)) \Rightarrow (( \\ & (v6\_zf\_lang X0) \vee (v11\_zf\_lang X0)) \Rightarrow (\forall X1.((v1\_zf\_lang \\ & X1) \wedge (m2\_finseq\_1 X1 k5\_numbers)) \Rightarrow (((v6\_zf\_lang X0) \Rightarrow ((X1 = k24\_zf\_lang \\ & X0) \Leftrightarrow (\exists X2.(m2\_subset\_1 X2 k5\_numbers k1\_zf\_lang) \wedge (k8\_zf\_lang \\ & X2 X1 = X0)))) \wedge ((\neg v6\_zf\_lang X0) \Rightarrow ((X1 = k24\_zf\_lang X0) \Leftrightarrow (\exists X2. \\ & (m2\_subset\_1 X2 k5\_numbers k1\_zf\_lang) \wedge (k13\_zf\_lang X2 X1 = X0)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1\_zf\_lang X0) \wedge (m2\_finseq\_1 X0 k5\_numbers)) \Rightarrow (( \\ & (v6\_zf\_lang X0) \vee (v11\_zf\_lang X0)) \Rightarrow (\forall X1.(m2\_subset\_1 \\ & X1 k5\_numbers k1\_zf\_lang) \Rightarrow (((v6\_zf\_lang X0) \Rightarrow ((X1 = k23\_zf\_lang \\ & X0) \Leftrightarrow (\exists X2.((v1\_zf\_lang X2) \wedge (m2\_finseq\_1 X2 k5\_numbers)) \wedge \\ & (k8\_zf\_lang X1 X2 = X0)))) \wedge ((\neg v6\_zf\_lang X0) \Rightarrow ((X1 = k23\_zf\_lang \\ & X0) \Leftrightarrow (\exists X2.((v1\_zf\_lang X2) \wedge (m2\_finseq\_1 X2 k5\_numbers)) \wedge \\ & (k13\_zf\_lang X1 X2 = X0)))))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1\_zf\_lang\ X0)\wedge(m2\_finseq\_1\ X0\ k5\_numbers))\Rightarrow(( \\ v6\_zf\_lang\ X0)\Leftrightarrow(\exists X1.(m2\_subset\_1\ X1\ k5\_numbers\ k1\_zf\_lang)\wedge \\ (\exists X2.((v1\_zf\_lang\ X2)\wedge(m2\_finseq\_1\ X2\ k5\_numbers))\wedge( \\ X0 = k8\_zf\_lang\ X1\ X2)))) \end{aligned} \quad (4)$$

**Theorem 1**

$$\begin{aligned} \forall X0.(m2\_subset\_1\ X0\ k5\_numbers\ k1\_zf\_lang)\Rightarrow(\forall X1. \\ ((v1\_zf\_lang\ X1)\wedge(m2\_finseq\_1\ X1\ k5\_numbers))\Rightarrow(\forall X2.( \\ (v1\_zf\_lang\ X2)\wedge(m2\_finseq\_1\ X2\ k5\_numbers))\Rightarrow((v6\_zf\_lang\ X1)\Rightarrow \\ ((\neg(X0 = k23\_zf\_lang\ X1)\wedge(\forall X3.((v1\_zf\_lang\ X3)\wedge(m2\_finseq\_1 \\ X3\ k5\_numbers))\Rightarrow(k8\_zf\_lang\ X0\ X3\neq X1))))\wedge(((\exists X3.((v1\_zf\_lang \\ X3)\wedge(m2\_finseq\_1\ X3\ k5\_numbers))\wedge(k8\_zf\_lang\ X0\ X3 = X1))\Rightarrow(X0 = \\ k23\_zf\_lang\ X1))\wedge(\neg(X2 = k24\_zf\_lang\ X1)\wedge(\forall X3.(m2\_subset\_1 \\ X3\ k5\_numbers\ k1\_zf\_lang)\Rightarrow(k8\_zf\_lang\ X3\ X2\neq X1))))\wedge((\exists X3. \\ (m2\_subset\_1\ X3\ k5\_numbers\ k1\_zf\_lang)\wedge(k8\_zf\_lang\ X3\ X2 = X1))\Rightarrow \\ (X2 = k24\_zf\_lang\ X1)))))) \end{aligned}$$