

t46_zf_lang1
(TMVyMvwZVxct4cpiCttXmjzx3tsoXUhDA3d)

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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 $r2_zf_lang : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_zf_lang : \iota \Rightarrow \iota$ be given. Let $r3_zf_lang : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_zf_lang : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k7_zf_lang : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zf_lang : \iota$ be given. Let $k8_zf_lang : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} \forall X0.((v1_zf_lang X0) \wedge (m2_finseq_1 X0 k5_numbers)) \Rightarrow (\forall X1. \\ ((v1_zf_lang X1) \wedge (m2_finseq_1 X1 k5_numbers)) \Rightarrow (\forall X2. (\\ (v1_zf_lang X2) \wedge (m2_finseq_1 X2 k5_numbers)) \Rightarrow ((\neg(\neg(r3_zf_lang \\ X0 X1) \wedge (r2_zf_lang X1 X2)) \wedge (\neg(r2_zf_lang X0 X1) \wedge (r3_zf_lang \\ X1 X2))) \wedge ((\neg(r2_zf_lang X0 X1) \wedge (r1_zf_lang X1 X2)) \wedge ((\neg(r1_zf_lang \\ X0 X1) \wedge (r2_zf_lang X1 X2)) \wedge ((\neg(r3_zf_lang X0 X1) \wedge (r1_zf_lang \\ X1 X2)) \wedge (\neg(r1_zf_lang X0 X1) \wedge (r3_zf_lang X1 X2)))))))))) \Rightarrow (r3_zf_lang \\ X0 X2)))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0. \forall X1. (m2_finseq_1 X1 X0) \Leftrightarrow (m1_finseq_1 X1 X0) \tag{2}$$

Assume the following.

$$\forall X0. ((v1_zf_lang X0) \wedge (m1_finseq_1 X0 k5_numbers)) \Rightarrow (v1_zf_lang \\ (k6_zf_lang X0)) \tag{3}$$

Assume the following.

$$\forall X0. (m1_finseq_1 X0 k5_numbers) \Rightarrow (m2_finseq_1 (k6_zf_lang \\ X0) k5_numbers) \tag{4}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((v1_zf_lang\ X0)\wedge(m2_finseq_1\ X0\ k5_numbers))\Rightarrow(\forall X1. \\
& ((v1_zf_lang\ X1)\wedge(m2_finseq_1\ X1\ k5_numbers))\Rightarrow((r1_zf_lang \\
& \quad X0\ X1)\Leftrightarrow(\neg(X1\neq k6_zf_lang\ X0)\wedge((\forall X2.((v1_zf_lang\ X2)\wedge \\
& m2_finseq_1\ X2\ k5_numbers))\Rightarrow((X1\neq k7_zf_lang\ X0\ X2)\wedge(X1\neq k7_zf_lang \\
& \quad X2\ X0))))\wedge(\forall X2.(m2_subset_1\ X2\ k5_numbers\ k1_zf_lang)\Rightarrow \\
& \quad (X1\neq k8_zf_lang\ X2\ X0))))))
\end{aligned} \tag{5}$$

Theorem 1

$$\begin{aligned}
& \forall X0.((v1_zf_lang\ X0)\wedge(m2_finseq_1\ X0\ k5_numbers))\Rightarrow(\forall X1. \\
& ((v1_zf_lang\ X1)\wedge(m2_finseq_1\ X1\ k5_numbers))\Rightarrow((r2_zf_lang \\
& \quad (k6_zf_lang\ X0)\ X1)\Rightarrow(r3_zf_lang\ X0\ X1)))
\end{aligned}$$