

t47_zf_lang1 (TMMHq-
garvCdLKNsgT9tdooBxKFqWzvAWerb)

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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 $k7_zf_lang : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $k6_zf_lang : \iota \Rightarrow \iota$ 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.

$$\begin{aligned} & \forall X0. \forall X1. (((v1_zf_lang X0) \wedge (m1_finseq_1 X0 k5_numbers)) \wedge \\ & ((v1_zf_lang X1) \wedge (m1_finseq_1 X1 k5_numbers))) \Rightarrow (v1_zf_lang \\ & (k7_zf_lang X0 X1)) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((m1_finseq_1 X0 k5_numbers) \wedge (m1_finseq_1 \\ & X1 k5_numbers)) \Rightarrow (m2_finseq_1 (k7_zf_lang X0 X1) k5_numbers) \end{aligned} \tag{4}$$

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

$$\begin{aligned}
& \forall X0.((v1_zf_lang\ X0)\wedge(m2_finseq_1\ X0\ k5_numbers))\Rightarrow(\forall X1. \\
& \quad ((v1_zf_lang\ X1)\wedge(m2_finseq_1\ X1\ k5_numbers))\Rightarrow(\forall X2.(\\
& (v1_zf_lang\ X2)\wedge(m2_finseq_1\ X2\ k5_numbers))\Rightarrow((r2_zf_lang\ (\\
& k7_zf_lang\ X0\ X1)\ X2)\Rightarrow((r3_zf_lang\ X0\ X2)\wedge(r3_zf_lang\ X1\ X2))))))
\end{aligned}$$