

t4_zf_lang1
(TMJPOB1xmawN832t7BJh9HtBFFb4sn8uw13)

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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 $k21_zf_lang : \iota \Rightarrow \iota$ be given. Let $k7_zf_lang : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k22_zf_lang : \iota \Rightarrow \iota$ be given. Let $v5_zf_lang : \iota \Rightarrow o$ be given. Let $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((v1_zf_lang X0) \wedge (m2_finseq_1 X0 k5_numbers)) \Rightarrow (\forall X1. \\ & ((v1_zf_lang X1) \wedge (m2_finseq_1 X1 k5_numbers)) \Rightarrow ((v5_zf_lang \\ & X0) \Rightarrow ((\neg(X1 = k21_zf_lang X0) \wedge (\forall X2.((v1_zf_lang X2) \wedge (m2_finseq_1 \\ & X2 k5_numbers)) \Rightarrow (k7_zf_lang X1 X2 \neq X0))) \wedge ((\exists X2.((v1_zf_lang \\ & X2) \wedge (m2_finseq_1 X2 k5_numbers)) \wedge (k7_zf_lang X1 X2 = X0)) \Rightarrow (X1 = \\ & k21_zf_lang X0)) \wedge ((\neg(X1 = k22_zf_lang X0) \wedge (\forall X2.((v1_zf_lang \\ & X2) \wedge (m2_finseq_1 X2 k5_numbers)) \Rightarrow (k7_zf_lang X2 X1 \neq X0))) \wedge ((\\ & \exists X2.((v1_zf_lang X2) \wedge (m2_finseq_1 X2 k5_numbers)) \wedge (k7_zf_lang \\ & X2 X1 = X0)) \Rightarrow (X1 = k22_zf_lang X0)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (m2_finseq_1 X1 X0) \Leftrightarrow (m1_finseq_1 X1 X0) \quad (2)$$

Assume the following.

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

Assume the following.

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

Assume the following.

$$\begin{aligned} & \forall X0. ((v1_zf_lang X0) \wedge (m2_finseq_1 X0 k5_numbers)) \Rightarrow ((\\ & v5_zf_lang X0) \Leftrightarrow (\exists X1. ((v1_zf_lang X1) \wedge (m2_finseq_1 X1 \\ & k5_numbers)) \wedge (\exists X2. ((v1_zf_lang X2) \wedge (m2_finseq_1 X2 k5_numbers)) \wedge \\ & (X0 = k7_zf_lang X1 X2)))) \end{aligned} \quad (5)$$

Theorem 1

$$\forall X0.((v1_zf_lang X0) \wedge (m2_finseq_1 X0 k5_numbers)) \Rightarrow (\forall X1. \\ ((v1_zf_lang X1) \wedge (m2_finseq_1 X1 k5_numbers)) \Rightarrow ((k21_zf_lang \\ (k7_zf_lang X0 X1) = X0) \wedge (k22_zf_lang (k7_zf_lang X0 X1) = X1)))$$