

t40_zf_lang1 (TM-
RANEq8cPqs4o4NDfbULxumAY2wq6Lqkv3)

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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 $r3_zf_lang : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r2_zf_lang : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_zf_lang : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

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

Assume the following.

$$\begin{aligned} \forall X0.((v1_zf_lang X0) \wedge (m2_finseq_1 X0 k5_numbers)) \Rightarrow (\forall X1. \\ ((v1_zf_lang X1) \wedge (m2_finseq_1 X1 k5_numbers)) \Rightarrow ((r1_zf_lang \\ X0 X1) \Rightarrow (r3_zf_lang X0 X1))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1_zf_lang X0) \wedge (m2_finseq_1 X0 k5_numbers)) \Rightarrow (\forall X1. \\ ((v1_zf_lang X1) \wedge (m2_finseq_1 X1 k5_numbers)) \Rightarrow ((r3_zf_lang \\ X0 X1) \Leftrightarrow ((r2_zf_lang X0 X1) \wedge (X0 \neq X1)))) \end{aligned} \quad (3)$$

Theorem 1

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