

t38_zf_lang
(TMU79bNAvmHosdRsbyxx4RC5Qoujv6sEbqr)

October 27, 2020

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 $v5_zf_lang : \iota \Rightarrow o$ 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 $v8_zf_lang : \iota \Rightarrow o$ be given. Let $k10_zf_lang : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} \forall X0.((v1_zf_lang X0) \wedge (m2_finseq_1 X0 k5_numbers)) \Rightarrow ((\\ (v5_zf_lang X0) \vee (v8_zf_lang X0)) \Rightarrow (\forall X1.((v1_zf_lang X1) \wedge \\ (m2_finseq_1 X1 k5_numbers)) \Rightarrow (((v5_zf_lang X0) \Rightarrow ((X1 = k22_zf_lang \\ X0) \Leftrightarrow (\exists X2.((v1_zf_lang X2) \wedge (m2_finseq_1 X2 k5_numbers)) \wedge \\ (k7_zf_lang X2 X1 = X0)))))) \wedge ((\neg v5_zf_lang X0) \Rightarrow ((X1 = k22_zf_lang \\ X0) \Leftrightarrow (\exists X2.((v1_zf_lang X2) \wedge (m2_finseq_1 X2 k5_numbers)) \wedge \\ (k10_zf_lang X2 X1 = X0))))))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} \forall X0.((v1_zf_lang X0) \wedge (m2_finseq_1 X0 k5_numbers)) \Rightarrow ((\\ (v5_zf_lang X0) \vee (v8_zf_lang X0)) \Rightarrow (\forall X1.((v1_zf_lang X1) \wedge \\ (m2_finseq_1 X1 k5_numbers)) \Rightarrow (((v5_zf_lang X0) \Rightarrow ((X1 = k21_zf_lang \\ X0) \Leftrightarrow (\exists X2.((v1_zf_lang X2) \wedge (m2_finseq_1 X2 k5_numbers)) \wedge \\ (k7_zf_lang X1 X2 = X0)))))) \wedge ((\neg v5_zf_lang X0) \Rightarrow ((X1 = k21_zf_lang \\ X0) \Leftrightarrow (\exists X2.((v1_zf_lang X2) \wedge (m2_finseq_1 X2 k5_numbers)) \wedge \\ (k10_zf_lang X1 X2 = X0))))))))) \end{aligned} \tag{2}$$

Theorem 1

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