

t56_zf_lang1
(TMQht3yeeayovevjymSXVZWuzuMcf4s37LQ)

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 $k29_zf_lang : \iota \Rightarrow \iota$ be given. Let $k10_zf_lang : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_enumset1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_zf_lang : \iota \Rightarrow \iota$ be given. Let $k7_zf_lang : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $k2_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((v1_zf_lang X0) \wedge (m2_finseq_1 X0 k5_numbers)) \Rightarrow (\forall X1. \\ & ((v1_zf_lang X1) \wedge (m2_finseq_1 X1 k5_numbers)) \Rightarrow (k29_zf_lang \\ & (k7_zf_lang X0 X1) = k2_xboole_0 (k2_xboole_0 (k29_zf_lang X0) \\ & (k29_zf_lang X1)) (k1_tarski (k7_zf_lang X0 X1)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_zf_lang X0) \wedge (m2_finseq_1 X0 k5_numbers)) \Rightarrow (k29_zf_lang \\ & (k6_zf_lang X0) = k2_xboole_0 (k29_zf_lang X0) (k1_tarski (k6_zf_lang \\ & X0))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. k2_xboole_0 (k2_xboole_0 X0 \\ & X1) X2 = k2_xboole_0 X0 (k2_xboole_0 X1 X2) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. k2_tarski X0 X1 = k2_xboole_0 (k1_tarski \\ & X0) (k1_tarski X1) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. (m2_finseq_1 X1 X0) \Leftrightarrow (m1_finseq_1 X1 X0) \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. k2_enumset1 X0 X1 \\ & X2 X3 = k2_xboole_0 (k2_tarski X0 X1) (k2_tarski X2 X3) \end{aligned} \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.(((v1_zf_lang X0)\wedge(m1_finseq_1 X0 k5_numbers))\wedge ((v1_zf_lang X1)\wedge(m1_finseq_1 X1 k5_numbers)))\Rightarrow(v1_zf_lang (k7_zf_lang X0 X1)) \quad (7)$$

Assume the following.

$$\forall X0.((v1_zf_lang X0)\wedge(m1_finseq_1 X0 k5_numbers))\Rightarrow(v1_zf_lang (k6_zf_lang X0)) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.((m1_finseq_1 X0 k5_numbers)\wedge(m1_finseq_1 X1 k5_numbers))\Rightarrow(m2_finseq_1 (k7_zf_lang X0 X1) k5_numbers) \quad (9)$$

Assume the following.

$$\forall X0.(m1_finseq_1 X0 k5_numbers)\Rightarrow(m2_finseq_1 (k6_zf_lang X0) k5_numbers) \quad (10)$$

Assume the following.

$$\forall X0.((v1_zf_lang X0)\wedge(m2_finseq_1 X0 k5_numbers))\Rightarrow(\forall X1. ((v1_zf_lang X1)\wedge(m2_finseq_1 X1 k5_numbers))\Rightarrow(k10_zf_lang X0 X1 = k6_zf_lang (k7_zf_lang (k6_zf_lang X0) (k6_zf_lang X1)))) \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.k2_xboole_0 X0 X1 = k2_xboole_0 X1 X0 \quad (12)$$

Theorem 1

$$\forall X0.((v1_zf_lang X0)\wedge(m2_finseq_1 X0 k5_numbers))\Rightarrow(\forall X1. ((v1_zf_lang X1)\wedge(m2_finseq_1 X1 k5_numbers))\Rightarrow(k29_zf_lang (k10_zf_lang X0 X1) = k2_xboole_0 (k2_xboole_0 (k29_zf_lang X0) (k29_zf_lang X1)) (k2_enumset1 (k6_zf_lang X1) (k6_zf_lang X0) (k7_zf_lang (k6_zf_lang X0) (k6_zf_lang X1)) (k10_zf_lang X0 X1))))$$