

t145_zf_lang1
(TMaJZG7EcF5cGagcx4h9Eo6GfSGPKLaziV4)

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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 $k3_zf_lang1 : \iota \Rightarrow \iota$ be given. Let $k12_zf_lang : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k11_zf_lang : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_zf_lang : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((v1_zf_lang X0) \wedge (m2_finseq_1 X0 k5_numbers)) \Rightarrow (\forall X1. \\ & ((v1_zf_lang X1) \wedge (m2_finseq_1 X1 k5_numbers)) \Rightarrow (k3_zf_lang1 \\ & (k11_zf_lang X0 X1) = k2_xboole_0 (k3_zf_lang1 X0) (k3_zf_lang1 \\ & X1))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_zf_lang X0) \wedge (m2_finseq_1 X0 k5_numbers)) \Rightarrow (\forall X1. \\ & ((v1_zf_lang X1) \wedge (m2_finseq_1 X1 k5_numbers)) \Rightarrow (k3_zf_lang1 \\ & (k7_zf_lang X0 X1) = k2_xboole_0 (k3_zf_lang1 X0) (k3_zf_lang1 \\ & X1))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (m2_finseq_1 X1 X0) \Leftrightarrow (m1_finseq_1 X1 X0) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. k2_xboole_0 X0 X0 = X0 \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((v1_zf_lang X0) \wedge (m1_finseq_1 X0 k5_numbers)) \wedge \\ & ((v1_zf_lang X1) \wedge (m1_finseq_1 X1 k5_numbers))) \Rightarrow ((v1_zf_lang \\ & (k11_zf_lang X0 X1)) \wedge (m2_finseq_1 (k11_zf_lang X0 X1) k5_numbers)) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_zf_lang X0) \wedge (m2_finseq_1 X0 k5_numbers)) \Rightarrow (\forall X1. \\ & ((v1_zf_lang X1) \wedge (m2_finseq_1 X1 k5_numbers)) \Rightarrow (k12_zf_lang \\ & X0 X1 = k7_zf_lang (k11_zf_lang X0 X1) (k11_zf_lang X1 X0))) \end{aligned} \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.k2_xboole_0 X0 X1 = k2_xboole_0 X1 X0 \quad (7)$$

Theorem 1

$$\begin{aligned} \forall X0.((v1_zf_lang X0)\wedge(m2_finseq_1 X0 k5_numbers))\Rightarrow(\forall X1. \\ ((v1_zf_lang X1)\wedge(m2_finseq_1 X1 k5_numbers))\Rightarrow(k3_zf_lang1 \\ (k12_zf_lang X0 X1) = k2_xboole_0 (k3_zf_lang1 X0) (k3_zf_lang1 \\ X1))) \end{aligned}$$