

t150_zf_lang1 (TMFTYEGNwz-
zJzyC7ZPG7xuyRF6i5HL1FnET)

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 $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zf_lang : \iota$ be given. Let $k3_zf_lang1 : \iota \Rightarrow \iota$ be given. Let $k17_zf_lang : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_enumset1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $k2_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k13_zf_lang : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k15_zf_lang : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. k2_xboole_0 (k2_xboole_0 X0 X1) X2 = k2_xboole_0 X0 (k2_xboole_0 X1 X2) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. k1_enumset1 X0 X1 X2 = k2_xboole_0 (k1_tarski X0) (k2_tarski X1 X2) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. k2_tarski X0 X1 = k2_xboole_0 (k1_tarski X0) (k1_tarski X1) \quad (3)$$

Assume the following.

$$\forall X0. ((v1_zf_lang X0) \wedge (m2_finseq_1 X0 k5_numbers)) \Rightarrow (\forall X1. (m2_subset_1 X1 k5_numbers k1_zf_lang) \Rightarrow (k3_zf_lang1 (k13_zf_lang X1 X0) = k2_xboole_0 (k3_zf_lang1 X0) (k1_tarski X1))) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. ((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 X0)))) \Rightarrow (\forall X2. (m2_subset_1 X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1)) \quad (5)$$

Assume the following.

$$\forall X0. \forall X1. (m2_finseq_1 X1 X0) \Leftrightarrow (m1_finseq_1 X1 X0) \quad (6)$$

Assume the following.

$$\neg v1_xboole_0 \ k1_zf_lang \quad (7)$$

Assume the following.

$$m1_subset_1 \ k1_zf_lang \ (k1_zfmisc_1 \ k5_numbers) \quad (8)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.((m1_subset_1 \ X0 \ k1_zf_lang) \wedge \\ & ((m1_subset_1 \ X1 \ k1_zf_lang) \wedge ((v1_zf_lang \ X2) \wedge (m1_finseq_1 \\ & X2 \ k5_numbers)))) \Rightarrow ((v1_zf_lang \ (k15_zf_lang \ X0 \ X1 \ X2)) \wedge (m2_finseq_1 \\ & (k15_zf_lang \ X0 \ X1 \ X2) \ k5_numbers)) \end{aligned} \quad (9)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.((m1_subset_1 \ X0 \ k1_zf_lang) \wedge ((v1_zf_lang \\ & X1) \wedge (m1_finseq_1 \ X1 \ k5_numbers))) \Rightarrow ((v1_zf_lang \ (k13_zf_lang \\ & X0 \ X1)) \wedge (m2_finseq_1 \ (k13_zf_lang \ X0 \ X1) \ k5_numbers)) \end{aligned} \quad (10)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m2_subset_1 \ X0 \ k5_numbers \ k1_zf_lang) \Rightarrow (\forall X1. \\ & (m2_subset_1 \ X1 \ k5_numbers \ k1_zf_lang) \Rightarrow (\forall X2.(m2_subset_1 \\ & X2 \ k5_numbers \ k1_zf_lang) \Rightarrow (\forall X3.((v1_zf_lang \ X3) \wedge (m2_finseq_1 \\ & X3 \ k5_numbers)) \Rightarrow (k17_zf_lang \ X0 \ X1 \ X2 \ X3 = k13_zf_lang \ X0 \ (k15_zf_lang \\ & X1 \ X2 \ X3)))))) \end{aligned} \quad (11)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m2_subset_1 \ X0 \ k5_numbers \ k1_zf_lang) \Rightarrow (\forall X1. \\ & (m2_subset_1 \ X1 \ k5_numbers \ k1_zf_lang) \Rightarrow (\forall X2.((v1_zf_lang \\ & X2) \wedge (m2_finseq_1 \ X2 \ k5_numbers)) \Rightarrow (k15_zf_lang \ X0 \ X1 \ X2 = k13_zf_lang \\ & X0 \ (k13_zf_lang \ X1 \ X2)))) \end{aligned} \quad (12)$$

Assume the following.

$$\forall X0.\forall X1.k2_xboole_0 \ X0 \ X1 = k2_xboole_0 \ X1 \ X0 \quad (13)$$

Assume the following.

$$\forall X0.(v1_xboole_0 \ X0) \Rightarrow (\forall X1.(m1_subset_1 \ X1 \ (k1_zfmisc_1 \ X0)) \Rightarrow (v1_xboole_0 \ X1)) \quad (14)$$

Theorem 1

$$\begin{aligned} & \forall X0.((v1_zf_lang \ X0) \wedge (m2_finseq_1 \ X0 \ k5_numbers)) \Rightarrow (\forall X1. \\ & (m2_subset_1 \ X1 \ k5_numbers \ k1_zf_lang) \Rightarrow (\forall X2.(m2_subset_1 \\ & X2 \ k5_numbers \ k1_zf_lang) \Rightarrow (\forall X3.(m2_subset_1 \ X3 \ k5_numbers \\ & k1_zf_lang) \Rightarrow (k3_zf_lang1 \ (k17_zf_lang \ X1 \ X2 \ X3 \ X0) = k2_xboole_0 \\ & (k3_zf_lang1 \ X0) \ (k1_enumset1 \ X1 \ X2 \ X3)))))) \end{aligned}$$