

t8_zf_lang1
(TMS8ut8TsfizpzH4tLxkoAed88iwnp19mx8)

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 $k23_zf_lang : \iota \Rightarrow \iota$ be given. Let $k8_zf_lang : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k24_zf_lang : \iota \Rightarrow \iota$ 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 $r2_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v6_zf_lang : \iota \Rightarrow o$ be given. Let $v11_zf_lang : \iota \Rightarrow o$ be given. Let $k13_zf_lang : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 X1) \wedge \\ & (m1_subset_1 X1 (k1_zfmisc_1 X0)))) \Rightarrow (\forall X2. (m2_subset_1 \\ & X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1)) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (m2_finseq_1 X1 X0) \Leftrightarrow (m1_finseq_1 X1 X0) \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. (m2_subset_1 X0 k5_numbers k1_zf_lang) \Rightarrow (\forall X1. \\ & ((v1_zf_lang X1) \wedge (m2_finseq_1 X1 k5_numbers)) \Rightarrow ((r2_relset_1 \\ & k5_numbers k5_numbers (k24_zf_lang (k8_zf_lang X0 X1)) X1) \wedge (k23_zf_lang \\ & (k8_zf_lang X0 X1) = X0))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((m1_subset_1 X0 k1_zf_lang) \wedge ((v1_zf_lang \\ & X1) \wedge (m1_finseq_1 X1 k5_numbers))) \Rightarrow (v1_zf_lang (k8_zf_lang X0 \\ & X1)) \end{aligned} \quad (4)$$

Assume the following.

$$\neg v1_xboole_0 k1_zf_lang \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((m1_subset_1 X0 k1_zf_lang) \wedge (m1_finseq_1 \\ & X1 k5_numbers)) \Rightarrow (m2_finseq_1 (k8_zf_lang X0 X1) k5_numbers) \end{aligned} \quad (6)$$

Assume the following.

$$m1_subset_1 \ k1_zf_lang \ (k1_zfmisc_1 \ k5_numbers) \quad (7)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1_zf_lang \ X0) \wedge (m2_finseq_1 \ X0 \ k5_numbers)) \Rightarrow ((\\ (v6_zf_lang \ X0) \vee (v11_zf_lang \ X0)) \Rightarrow (\forall X1.((v1_zf_lang \\ X1) \wedge (m2_finseq_1 \ X1 \ k5_numbers)) \Rightarrow (((v6_zf_lang \ X0) \Rightarrow ((X1 = k24_zf_lang \\ X0) \Leftrightarrow (\exists X2.(m2_subset_1 \ X2 \ k5_numbers \ k1_zf_lang) \wedge (k8_zf_lang \\ X2 \ X1 = X0)))) \wedge ((\neg v6_zf_lang \ X0) \Rightarrow ((X1 = k24_zf_lang \ X0) \Leftrightarrow (\exists X2. \\ (m2_subset_1 \ X2 \ k5_numbers \ k1_zf_lang) \wedge (k13_zf_lang \ X2 \ X1 = X0))))))) \end{aligned} \quad (8)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1_zf_lang \ X0) \wedge (m2_finseq_1 \ X0 \ k5_numbers)) \Rightarrow ((\\ v6_zf_lang \ X0) \Leftrightarrow (\exists X1.(m2_subset_1 \ X1 \ k5_numbers \ k1_zf_lang) \wedge \\ (\exists X2.((v1_zf_lang \ X2) \wedge (m2_finseq_1 \ X2 \ k5_numbers)) \wedge \\ X0 = k8_zf_lang \ X1 \ X2))) \end{aligned} \quad (9)$$

Assume the following.

$$\forall X0.(v1_xboole_0 \ X0) \Rightarrow (\forall X1.(m1_subset_1 \ X1 \ (k1_zfmisc_1 \ X0)) \Rightarrow (v1_xboole_0 \ X1)) \quad (10)$$

Theorem 1

$$\begin{aligned} \forall X0.((v1_zf_lang \ X0) \wedge (m2_finseq_1 \ X0 \ k5_numbers)) \Rightarrow (\forall X1. \\ (m2_subset_1 \ X1 \ k5_numbers \ k1_zf_lang) \Rightarrow ((k23_zf_lang \ (k8_zf_lang \\ X1 \ X0) = X1) \wedge (k24_zf_lang \ (k8_zf_lang \ X1 \ X0) = X0))) \end{aligned}$$