

t165_zf_lang1
(TMQ3QqabGyDD6JjttniFwJLEqD4yiCwjZ6z)

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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 $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zf_lang : \iota$ be given. Let $k13_zf_lang : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_zf_lang1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_zf_lang : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_zf_lang : \iota \Rightarrow \iota$ be given. Let $k5_zf_lang1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ 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 $k4_ordinal1 : \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np_5 : \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((v1_zf_lang X0) \wedge (m2_finseq_1 X0 k5_numbers)) \Rightarrow (\forall X1. \\ & ((v1_zf_lang X1) \wedge (m2_finseq_1 X1 k5_numbers)) \Rightarrow (\forall X2.(\\ & m2_subset_1 X2 k5_numbers k1_zf_lang) \Rightarrow (\forall X3.(m2_subset_1 \\ & X3 k5_numbers k1_zf_lang) \Rightarrow ((k8_zf_lang X2 X0 = k6_zf_lang1 (k8_zf_lang \\ & X3 X1) X3 X2) \Leftrightarrow (X0 = k6_zf_lang1 X1 X3 X2)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_zf_lang X0) \wedge (m2_finseq_1 X0 k5_numbers)) \Rightarrow (\forall X1. \\ & ((v1_zf_lang X1) \wedge (m2_finseq_1 X1 k5_numbers)) \Rightarrow (\forall X2.(\\ & m2_subset_1 X2 k5_numbers k1_zf_lang) \Rightarrow (\forall X3.(m2_subset_1 \\ & X3 k5_numbers k1_zf_lang) \Rightarrow ((k6_zf_lang X0 = k5_zf_lang1 (k6_zf_lang \\ & X1) X2 X3) \Leftrightarrow (X0 = k5_zf_lang1 X1 X2 X3)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 X1) \wedge \\ & (m1_subset_1 X1 (k1_zfmisc_1 X0)))) \Rightarrow (\forall X2.(m2_subset_1 \\ & X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1)) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. (m2_finseq_1 X1 X0) \Leftrightarrow (m1_finseq_1 X1 X0) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(((v1_zf_lang\ X0)\wedge(m1_finseq_1\ X0\ k5_numbers))\wedge((m1_subset_1\ X1\ k1_zf_lang)\wedge(m1_subset_1\ X2\ k1_zf_lang)))\Rightarrow(k6_zf_lang1\ X0\ X1\ X2 = k5_zf_lang1\ X0\ X1\ X2) \quad (5)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1\ X0\ k1_zf_lang)\wedge((v1_zf_lang\ X1)\wedge(m1_finseq_1\ X1\ k5_numbers)))\Rightarrow(v1_zf_lang\ (k8_zf_lang\ X0\ X1)) \quad (7)$$

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.

$$\neg v1_xboole_0\ k1_zf_lang \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1\ X0\ k1_zf_lang)\wedge(m1_finseq_1\ X1\ k5_numbers))\Rightarrow(m2_finseq_1\ (k8_zf_lang\ X0\ X1)\ k5_numbers) \quad (10)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(((v1_zf_lang\ X0)\wedge(m1_finseq_1\ X0\ k5_numbers))\wedge((m1_subset_1\ X1\ k1_zf_lang)\wedge(m1_subset_1\ X2\ k1_zf_lang)))\Rightarrow((v1_zf_lang\ (k6_zf_lang1\ X0\ X1\ X2))\wedge(m2_finseq_1\ (k6_zf_lang1\ X0\ X1\ X2)\ k5_numbers)) \quad (11)$$

Assume the following.

$$\forall X0.(m1_finseq_1\ X0\ k5_numbers)\Rightarrow(m2_finseq_1\ (k6_zf_lang\ X0)\ k5_numbers) \quad (12)$$

Assume the following.

$$m1_subset_1\ k1_zf_lang\ (k1_zfmisc_1\ k5_numbers) \quad (13)$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1\ X0\ k1_zf_lang)\wedge((v1_zf_lang\ X1)\wedge(m1_finseq_1\ X1\ k5_numbers)))\Rightarrow((v1_zf_lang\ (k13_zf_lang\ X0\ X1))\wedge(m2_finseq_1\ (k13_zf_lang\ X0\ X1)\ k5_numbers)) \quad (14)$$

Assume the following.

$$k1_zf_lang = ReplSep (toset (\lambda X0 : \iota.m1_subset_1 X0 k5_numbers)) \\ (\lambda X0 : \iota.r1_xreal_0 np_5 X0) (\lambda X0 : \iota.X0) \quad (15)$$

Assume the following.

$$\forall X0.(m2_subset_1 X0 k5_numbers k1_zf_lang) \Rightarrow (\forall X1. \\ ((v1_zf_lang X1) \wedge (m2_finseq_1 X1 k5_numbers)) \Rightarrow (k13_zf_lang \\ X0 X1 = k6_zf_lang (k8_zf_lang X0 (k6_zf_lang X1)))) \quad (16)$$

Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 \\ X0)) \Rightarrow (v1_xboole_0 X1)) \quad (17)$$

Theorem 1

$$\forall X0.((v1_zf_lang X0) \wedge (m2_finseq_1 X0 k5_numbers)) \Rightarrow (\forall X1. \\ ((v1_zf_lang X1) \wedge (m2_finseq_1 X1 k5_numbers)) \Rightarrow (\forall X2.(\\ m2_subset_1 X2 k5_numbers k1_zf_lang) \Rightarrow (\forall X3.(m2_subset_1 \\ X3 k5_numbers k1_zf_lang) \Rightarrow ((k13_zf_lang X2 X0 = k6_zf_lang1 (k13_zf_lang \\ X3 X1) X3 X2) \Leftrightarrow (X0 = k6_zf_lang1 X1 X3 X2))))))$$