

t16_zf_lang1
(TMP82hBZBiguNNWGkbbNhPdP3HVNvVz8STL)

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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 $k16_zf_lang : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k14_zf_lang : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_zf_lang : \iota \Rightarrow \iota \Rightarrow \iota$ 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. Assume the following.

$$\begin{aligned} & \forall X0.((v1_zf_lang X0) \wedge (m2_finseq_1 X0 k5_numbers)) \Rightarrow (\forall X1. \\ & \quad ((v1_zf_lang X1) \wedge (m2_finseq_1 X1 k5_numbers)) \Rightarrow (\forall X2.(\\ & \quad m2_subset_1 X2 k5_numbers k1_zf_lang) \Rightarrow (\forall X3.(m2_subset_1 \\ & \quad X3 k5_numbers k1_zf_lang) \Rightarrow (\forall X4.(m2_subset_1 X4 k5_numbers \\ & \quad k1_zf_lang) \Rightarrow (\forall X5.(m2_subset_1 X5 k5_numbers k1_zf_lang) \Rightarrow \\ & \quad ((k14_zf_lang X2 X3 X0 = k14_zf_lang X4 X5 X1) \Rightarrow ((X2 = X4) \wedge ((X3 = X5) \wedge \\ & \quad (X0 = X1)))))))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 X1) \wedge \\ & (m1_subset_1 X1 (k1_zfmisc_1 X0)))) \Rightarrow (\forall X2.(m2_subset_1 \\ & \quad X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1)) \end{aligned} \tag{2}$$

Assume the following.

$$\forall X0. \forall X1. (m2_finseq_1 X1 X0) \Leftrightarrow (m1_finseq_1 X1 X0) \tag{3}$$

Assume the following.

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

Assume the following.

$$\neg v1_xboole_0 k1_zf_lang \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 X0 k1_zf_lang)\wedge(m1_finseq_1 X1 k5_numbers))\Rightarrow(m2_finseq_1 (k8_zf_lang X0 X1) k5_numbers) \quad (6)$$

Assume the following.

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

Assume the following.

$$\begin{aligned} \forall X0.(m2_subset_1 X0 k5_numbers k1_zf_lang)\Rightarrow(\forall X1. \\ (m2_subset_1 X1 k5_numbers k1_zf_lang)\Rightarrow(\forall X2.(m2_subset_1 \\ X2 k5_numbers k1_zf_lang)\Rightarrow(\forall X3.((v1_zf_lang X3)\wedge(m2_finseq_1 \\ X3 k5_numbers))\Rightarrow(k16_zf_lang X0 X1 X2 X3 = k8_zf_lang X0 (k14_zf_lang \\ X1 X2 X3)))))) \end{aligned} \quad (8)$$

Assume the following.

$$\begin{aligned} \forall X0.(m2_subset_1 X0 k5_numbers k1_zf_lang)\Rightarrow(\forall X1. \\ (m2_subset_1 X1 k5_numbers k1_zf_lang)\Rightarrow(\forall X2.((v1_zf_lang \\ X2)\wedge(m2_finseq_1 X2 k5_numbers))\Rightarrow(k14_zf_lang X0 X1 X2 = k8_zf_lang \\ X0 (k8_zf_lang X1 X2)))) \end{aligned} \quad (9)$$

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

$$\begin{aligned} \forall X0.((v1_zf_lang X0)\wedge(m2_finseq_1 X0 k5_numbers))\Rightarrow(\forall X1. \\ ((v1_zf_lang X1)\wedge(m2_finseq_1 X1 k5_numbers))\Rightarrow(\forall X2.(\\ m2_subset_1 X2 k5_numbers k1_zf_lang)\Rightarrow(\forall X3.(m2_subset_1 \\ X3 k5_numbers k1_zf_lang)\Rightarrow(\forall X4.(m2_subset_1 X4 k5_numbers \\ k1_zf_lang)\Rightarrow(\forall X5.(m2_subset_1 X5 k5_numbers k1_zf_lang)\Rightarrow \\ (\forall X6.(m2_subset_1 X6 k5_numbers k1_zf_lang)\Rightarrow((k16_zf_lang \\ X2 X3 X4 X0 = k14_zf_lang X5 X6 X1)\Rightarrow((X2 = X5)\wedge((X3 = X6)\wedge(k8_zf_lang \\ X4 X0 = X1)))))))))) \end{aligned}$$