

t16_zf_model
(TMFC1hVsYw7QAaoCqiRupqTs7ELFAaHifR6)

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Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zf_lang : \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. 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 $r1_zf_model : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k8_zf_lang : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_zf_model : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
& \forall X0.(\neg v1_xboole_0 X0) \Rightarrow (\forall X1.(m2_subset_1 X1 k5_numbers \\
& k1_zf_lang) \Rightarrow (\forall X2.((v1_zf_lang X2) \wedge (m2_finseq_1 X2 k5_numbers)) \Rightarrow \\
& (\forall X3.((v1_funct_1 X3) \wedge ((v1_funct_2 X3 k1_zf_lang X0) \wedge \\
& (m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 k1_zf_lang X0)))))) \Rightarrow \\
& (((X3 \in k5_zf_model X2 X0) \wedge (\forall X4.((v1_funct_1 X4) \wedge ((v1_funct_2 \\
& X4 k1_zf_lang X0) \wedge (m1_subset_1 X4 (k1_zfmisc_1 (k2_zfmisc_1 k1_zf_lang \\
& X0)))))) \Rightarrow ((\forall X5.(m2_subset_1 X5 k5_numbers k1_zf_lang) \Rightarrow \\
& ((k3_funct_2 k1_zf_lang X0 X4 X5 \neq k3_funct_2 k1_zf_lang X0 X3 X5) \Rightarrow \\
& (X1 = X5))) \Rightarrow (X4 \in k5_zf_model X2 X0))) \Leftrightarrow (X3 \in k5_zf_model (k8_zf_lang \\
& X1 X2) X0))))))
\end{aligned} \tag{1}$$

Assume the following.

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

Assume the following.

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

Assume the following.

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

Assume the following.

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

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.

$$\begin{aligned} \forall X0.(\neg v1_xboole_0 \ X0)\Rightarrow(\forall X1.((v1_funct_1 \ X1)\wedge \\ (v1_funct_2 \ X1 \ k1_zf_lang \ X0)\wedge(m1_subset_1 \ X1 \ (k1_zfmisc_1 \ (k2_zfmisc_1 \\ k1_zf_lang \ X0))))\Rightarrow(\forall X2.((v1_zf_lang \ X2)\wedge(m2_finseq_1 \\ X2 \ k5_numbers))\Rightarrow((r1_zf_model \ X0 \ X1 \ X2)\Leftrightarrow(X1 \in k5_zf_model \ X2 \ X0)))) \quad (8) \end{aligned}$$

Assume the following.

$$\forall X0.(v1_xboole_0 \ X0)\Rightarrow(\forall X1.(m1_subset_1 \ X1 \ (k1_zfmisc_1 \ X0))\Rightarrow(v1_xboole_0 \ X1)) \quad (9)$$

Theorem 1

$$\begin{aligned} \forall X0.(\neg v1_xboole_0 \ X0)\Rightarrow(\forall X1.((v1_funct_1 \ X1)\wedge \\ (v1_funct_2 \ X1 \ k1_zf_lang \ X0)\wedge(m1_subset_1 \ X1 \ (k1_zfmisc_1 \ (k2_zfmisc_1 \\ k1_zf_lang \ X0))))\Rightarrow(\forall X2.((v1_zf_lang \ X2)\wedge(m2_finseq_1 \\ X2 \ k5_numbers))\Rightarrow(\forall X3.(m2_subset_1 \ X3 \ k5_numbers \ k1_zf_lang)\Rightarrow \\ ((r1_zf_model \ X0 \ X1 \ (k8_zf_lang \ X3 \ X2))\Leftrightarrow(\forall X4.((v1_funct_1 \\ X4)\wedge((v1_funct_2 \ X4 \ k1_zf_lang \ X0)\wedge(m1_subset_1 \ X4 \ (k1_zfmisc_1 \\ (k2_zfmisc_1 \ k1_zf_lang \ X0))))\Rightarrow((\forall X5.(m2_subset_1 \ X5 \\ k5_numbers \ k1_zf_lang)\Rightarrow((k3_funct_2 \ k1_zf_lang \ X0 \ X4 \ X5\neq k3_funct_2 \\ k1_zf_lang \ X0 \ X1 \ X5)\Rightarrow(X3 = X5))\Rightarrow(r1_zf_model \ X0 \ X4 \ X2)))))) \quad (10) \end{aligned}$$