

t13_zfmodel2

(TMangkhKWrxrgw6k5hp8nvT2A8k8o6NtY29)

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Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $k1_zf_lang : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_zf_lang : \iota \Rightarrow o$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ 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 $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_zf_model : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_zf_lang1 : \iota \Rightarrow \iota$ be given. Let $k2_zf_lang1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_zf_lang1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $k2_funct_7 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0.(m2_subset_1 X0 k5_numbers k1_zf_lang) \Rightarrow (\forall X1. \\
 & (\neg v1_xboole_0 X1) \Rightarrow (\forall X2.(m1_subset_1 X2 X1) \Rightarrow (\forall X3. \\
 & ((v1_zf_lang X3) \wedge (m2_finseq_1 X3 k5_numbers)) \Rightarrow (\forall X4.(\\
 & (v1_funct_1 X4) \wedge ((v1_funct_2 X4 k1_zf_lang X1) \wedge (m1_subset_1 \\
 & X4 (k1_zfmisc_1 (k2_zfmisc_1 k1_zf_lang X1)))))) \Rightarrow ((\neg X0 \in k4_zf_lang1 \\
 & X3) \Rightarrow ((r1_zf_model X1 X4 X3) \Leftrightarrow (r1_zf_model X1 (k2_zf_lang1 X1 X4 \\
 & X0 X2) X3))))))
 \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (\forall X1.k2_funct_7 X0 X1 (k1_funct_1 X0 X1) = X0) \tag{2}$$

Assume the following.

$$\begin{aligned}
 & \forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (\forall X1.\forall X2. \\
 & \forall X3.\forall X4.(X3 \neq X4) \Rightarrow (k2_funct_7 (k2_funct_7 X0 X3 X1) \\
 & X4 X2 = k2_funct_7 (k2_funct_7 X0 X4 X2) X3 X1))
 \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(m2_subset_1 X0 k5_numbers k1_zf_lang) \Rightarrow (\forall X1. \\
& (m2_subset_1 X1 k5_numbers k1_zf_lang) \Rightarrow (\forall X2. (\neg v1_xboole_0 \\
& X2) \Rightarrow (\forall X3. ((v1_zf_lang X3) \wedge (m2_finseq_1 X3 k5_numbers)) \Rightarrow \\
& (\forall X4. ((v1_funct_1 X4) \wedge ((v1_funct_2 X4 k1_zf_lang X2) \wedge \\
& (m1_subset_1 X4 (k1_zfmisc_1 (k2_zfmisc_1 k1_zf_lang X2)))))) \Rightarrow \\
& ((\neg X0 \in k4_zf_lang1 X3) \Rightarrow ((r1_zf_model X2 X4 (k6_zf_lang1 X3 X1 X0)) \Leftrightarrow \\
& (r1_zf_model X2 (k2_zf_lang1 X2 X4 X1 (k3_funct_2 k1_zf_lang X2 \\
& X4 X0)) X3))))))
\end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned}
& \forall X0. (\neg v1_xboole_0 X0) \Rightarrow (\forall X1. (\neg v1_xboole_0 X1) \Rightarrow \\
& (\forall X2. ((v1_funct_1 X2) \wedge ((v1_funct_2 X2 X0 X1) \wedge (m1_subset_1 \\
& X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))))) \Rightarrow (\forall X3. (m1_subset_1 \\
& X3 X0) \Rightarrow (\forall X4. k1_funct_1 (k2_funct_7 X2 X3 X4) X3 = X4)))
\end{aligned} \tag{5}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. ((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 X1) \wedge \\
& (m1_subset_1 X1 (k1_zfmisc_1 X0)))) \Rightarrow (\forall X2. (m2_subset_1 \\
& X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1))
\end{aligned} \tag{6}$$

Assume the following.

$$k5_numbers = k4_ordinal1 \tag{7}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. \forall X2. \forall X3. ((\neg v1_xboole_0 X0) \wedge \\
& (((v1_funct_1 X2) \wedge ((v1_funct_2 X2 X0 X1) \wedge (m1_subset_1 X2 (k1_zfmisc_1 \\
& (k2_zfmisc_1 X0 X1)))))) \wedge (m1_subset_1 X3 X0))) \Rightarrow (k3_funct_2 X0 \\
& X1 X2 X3 = k1_funct_1 X2 X3)
\end{aligned} \tag{8}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. \forall X2. \forall X3. ((\neg v1_xboole_0 X0) \wedge \\
& (((v1_funct_1 X1) \wedge ((v1_funct_2 X1 k1_zf_lang X0) \wedge (m1_subset_1 \\
& X1 (k1_zfmisc_1 (k2_zfmisc_1 k1_zf_lang X0)))))) \wedge ((m1_subset_1 \\
& X2 k1_zf_lang) \wedge (m1_subset_1 X3 X0))) \Rightarrow (k2_zf_lang1 X0 X1 X2 X3 = \\
& k2_funct_7 X1 X2 X3)
\end{aligned} \tag{9}$$

Assume the following.

$$(\neg v1_xboole_0 k4_ordinal1) \wedge (v3_ordinal1 k4_ordinal1) \tag{10}$$

Assume the following.

$$\neg v1_xboole_0 k1_zf_lang \tag{11}$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.((\neg v1_xboole_0 X0)\wedge \\ & (((v1_funct_1 X2)\wedge((v1_funct_2 X2 X0 X1)\wedge(m1_subset_1 X2 (k1_zfmisc_1 \\ & (k2_zfmisc_1 X0 X1))))))\wedge(m1_subset_1 X3 X0)))\Rightarrow(m1_subset_1 (\\ & k3_funct_2 X0 X1 X2 X3) X1) \end{aligned} \quad (12)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.((\neg v1_xboole_0 X0)\wedge \\ & (((v1_funct_1 X1)\wedge((v1_funct_2 X1 k1_zf_lang X0)\wedge(m1_subset_1 \\ & X1 (k1_zfmisc_1 (k2_zfmisc_1 k1_zf_lang X0))))))\wedge((m1_subset_1 \\ & X2 k1_zf_lang)\wedge(m1_subset_1 X3 X0)))\Rightarrow((v1_funct_1 (k2_zf_lang1 \\ & X0 X1 X2 X3))\wedge((v1_funct_2 (k2_zf_lang1 X0 X1 X2 X3) k1_zf_lang X0)\wedge \\ & (m1_subset_1 (k2_zf_lang1 X0 X1 X2 X3) (k1_zfmisc_1 (k2_zfmisc_1 \\ & k1_zf_lang X0)))))) \end{aligned} \quad (13)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.((v1_relat_1 X0)\wedge(v1_funct_1 \\ & X0))\Rightarrow((v1_relat_1 (k2_funct_7 X0 X1 X2))\wedge(v1_funct_1 (k2_funct_7 \\ & X0 X1 X2))) \end{aligned} \quad (14)$$

Assume the following.

$$m1_subset_1 k1_zf_lang (k1_zfmisc_1 k5_numbers) \quad (15)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 \\ & (k2_zfmisc_1 X0 X1)))\Rightarrow(v1_relat_1 X2) \end{aligned} \quad (16)$$

Theorem 1

$$\begin{aligned} & \forall X0.(m2_subset_1 X0 k5_numbers k1_zf_lang)\Rightarrow(\forall X1. \\ & (m2_subset_1 X1 k5_numbers k1_zf_lang)\Rightarrow(\forall X2.(\neg v1_xboole_0 \\ & X2)\Rightarrow(\forall X3.((v1_zf_lang X3)\wedge(m2_finseq_1 X3 k5_numbers))\Rightarrow \\ & (\forall X4.((v1_funct_1 X4)\wedge((v1_funct_2 X4 k1_zf_lang X2)\wedge \\ & (m1_subset_1 X4 (k1_zfmisc_1 (k2_zfmisc_1 k1_zf_lang X2))))))\Rightarrow \\ & ((r1_zf_model X2 X4 X3)\Rightarrow((X0 \in k4_zf_lang1 X3)\vee(r1_zf_model X2 \\ & (k2_zf_lang1 X2 X4 X0 (k3_funct_2 k1_zf_lang X2 X4 X1)) (k6_zf_lang1 \\ & X3 X1 X0))))))))) \end{aligned}$$