

t12_zf_model

(TMHrf9wjNXyQ1AME96eRKDR5sopYWjf4vbp)

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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 $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $r1_zf_model : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_zf_lang : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $v1_zf_lang : \iota \Rightarrow o$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0. (\neg v1_xboole_0 X0) \Rightarrow (\forall X1. (m2_subset_1 X1 k5_numbers \\
 & \quad k1_zf_lang) \Rightarrow (\forall X2. (m2_subset_1 X2 k5_numbers k1_zf_lang) \Rightarrow \\
 & \quad (\forall X3. ((v1_funct_1 X3) \wedge ((v1_funct_2 X3 k1_zf_lang X0) \wedge \\
 & \quad (m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 k1_zf_lang X0)))))) \Rightarrow \\
 & \quad ((k3_funct_2 k1_zf_lang X0 X3 X1 = k3_funct_2 k1_zf_lang X0 X3 X2) \Leftrightarrow \\
 & \quad (X3 \in k5_zf_model (k4_zf_lang X1 X2) X0))))))
 \end{aligned} \tag{1}$$

Assume the following.

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

Assume the following.

$$\begin{aligned}
 & \forall X0. \forall X1. ((m1_subset_1 X0 k1_zf_lang) \wedge (m1_subset_1 \\
 & \quad X1 k1_zf_lang)) \Rightarrow (v1_zf_lang (k4_zf_lang X0 X1))
 \end{aligned} \tag{3}$$

Assume the following.

$$\neg v1_xboole_0 k1_zf_lang \tag{4}$$

Assume the following.

$$\begin{aligned}
 & \forall X0. \forall X1. ((m1_subset_1 X0 k1_zf_lang) \wedge (m1_subset_1 \\
 & \quad X1 k1_zf_lang)) \Rightarrow (m2_finseq_1 (k4_zf_lang X0 X1) k5_numbers)
 \end{aligned} \tag{5}$$

Assume the following.

$$m1_subset_1 \ k1_zf_lang \ (k1_zfmisc_1 \ k5_numbers) \quad (6)$$

Assume the following.

$$\begin{aligned} \forall X0.(\neg v1_xboole_0 \ X0) \Rightarrow (\forall X1.((v1_funct_1 \ X1) \wedge \\ (v1_funct_2 \ X1 \ k1_zf_lang \ X0) \wedge (m1_subset_1 \ X1 \ (k1_zfmisc_1 \ (k2_zfmisc_1 \\ k1_zf_lang \ X0)))) \Rightarrow (\forall X2.((v1_zf_lang \ X2) \wedge (m2_finseq_1 \\ X2 \ k5_numbers)) \Rightarrow ((r1_zf_model \ X0 \ X1 \ X2) \Leftrightarrow (X1 \in k5_zf_model \ X2 \ X0)))) \end{aligned} \quad (7)$$

Assume the following.

$$\forall X0.(v1_xboole_0 \ X0) \Rightarrow (\forall X1.(m1_subset_1 \ X1 \ (k1_zfmisc_1 \ X0)) \Rightarrow (v1_xboole_0 \ X1)) \quad (8)$$

Theorem 1

$$\begin{aligned} \forall X0.(\neg v1_xboole_0 \ X0) \Rightarrow (\forall X1.((v1_funct_1 \ X1) \wedge \\ (v1_funct_2 \ X1 \ k1_zf_lang \ X0) \wedge (m1_subset_1 \ X1 \ (k1_zfmisc_1 \ (k2_zfmisc_1 \\ k1_zf_lang \ X0)))) \Rightarrow (\forall X2.(m2_subset_1 \ X2 \ k5_numbers \ k1_zf_lang) \Rightarrow \\ (\forall X3.(m2_subset_1 \ X3 \ k5_numbers \ k1_zf_lang) \Rightarrow ((r1_zf_model \\ X0 \ X1 \ (k4_zf_lang \ X2 \ X3)) \Leftrightarrow (k3_funct_2 \ k1_zf_lang \ X0 \ X1 \ X2 = k3_funct_2 \\ k1_zf_lang \ X0 \ X1 \ X3)))) \end{aligned}$$