

l98_fomodel4

(TMV_{k8je}GVD_{ys}KNA_{fm}R3cDBHGLJ2TMKTjEQg)

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Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_domain_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_margrel1 : \iota$ be given. Let $k3_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_fomodel0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_fomodel2 : \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_rfunct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $np_1 : \iota$ be given. Let $k4_funct_3 : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_relat_1 : \iota \Rightarrow \iota$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. (\neg v1_xboole_0 X1) \Rightarrow (\forall X2. (m1_subset_1 X2 X1) \Rightarrow ((\neg X2 \in X0) \Leftrightarrow (k1_funct_1 (k7_rfunct_1 X0 X1) X2 = k6_numbers))) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (\neg v1_xboole_0 X1) \Rightarrow (\forall X2. (m1_subset_1 X2 X1) \Rightarrow ((X2 \in X0) \Leftrightarrow (k1_funct_1 (k7_rfunct_1 X0 X1) X2 = np_1))) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X0 X1) \Rightarrow ((v1_xboole_0 X1) \vee (X0 \in X1)) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. k9_fomodel0 X0 X1 = k4_funct_3 X0 X1 \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. k7_rfunct_1 X0 X1 = k4_funct_3 X0 X1 \quad (5)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. \forall X3. ((\neg v1_xboole_0 X0) \wedge (((v1_funct_1 X2) \wedge ((v1_funct_2 X2 X0 X1) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))))) \wedge (m1_subset_1 X3 X0))) \Rightarrow (k3_funct_2 X0 X1 X2 X3 = k1_funct_1 X2 X3) \quad (6)$$

Assume the following.

$$\forall X0.k3_fomodel2\ X0 = k4_relat_1\ X0 \quad (7)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.((\neg v1_xboole_0\ X0)\wedge \\ & ((\neg v1_xboole_0\ X1)\wedge((m1_subset_1\ X2\ X0)\wedge(m1_subset_1\ X3\ X1))))\Rightarrow \\ & (k1_domain_1\ X0\ X1\ X2\ X3 = k4_tarSKI\ X2\ X3) \end{aligned} \quad (8)$$

Assume the following.

$$\neg v1_xboole_0\ k6_margrel1 \quad (9)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.(v1_funct_1\ (k9_fomodel0\ X0\ X1))\wedge((v1_funct_2 \\ & (k9_fomodel0\ X0\ X1)\ X1\ k6_margrel1)\wedge(m1_subset_1\ (k9_fomodel0 \\ & X0\ X1)\ (k1_zfmisc_1\ (k2_zfmisc_1\ X1\ k6_margrel1)))) \end{aligned} \quad (10)$$

Assume the following.

$$\forall X0.v1_relat_1\ (k4_relat_1\ X0) \quad (11)$$

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.

$$\begin{aligned} & \forall X0.\forall X1.(v1_relat_1\ X1)\Rightarrow((X1 = k4_relat_1\ X0)\Leftrightarrow(\\ & \forall X2.\forall X3.(k4_tarSKI\ X2\ X3 \in X1)\Leftrightarrow((X2 \in X0)\wedge(X2 = X3)))) \end{aligned} \quad (13)$$

Theorem 1

$$\begin{aligned} & \forall X0.(\neg v1_xboole_0\ X0)\Rightarrow(\forall X1.\forall X2.(m1_subset_1 \\ & X2\ X0)\Rightarrow(\forall X3.(m1_subset_1\ X3\ X0)\Rightarrow(\neg((X2 \in X1)\Rightarrow(X3 \in X1))\wedge \\ & (((X3 \in X1)\Rightarrow(X2 \in X1))\wedge(\neg k1_domain_1\ k6_margrel1\ k6_margrel1\ (\\ & k3_funct_2\ X0\ k6_margrel1\ (k9_fomodel0\ X1\ X0)\ X2)\ (k3_funct_2\ X0 \\ & k6_margrel1\ (k9_fomodel0\ X1\ X0)\ X3) \in k3_fomodel2\ k6_margrel1)))) \end{aligned}$$