

l39_fomodel1

(TMRz9wiEdY9EvWCNbjPdyaUS5iFm6w2SeVE)

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Let $v6_struct_0 : \iota \Rightarrow o$ be given. Let $v11_fomodel1 : \iota \Rightarrow o$ be given. Let $l1_fomodel1 : \iota \Rightarrow o$ be given. Let $k27_fomodel1 : \iota \Rightarrow \iota$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k5_numbers : \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k25_fomodel1 : \iota \Rightarrow \iota$ 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 $k4_ordinal1 : \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $k3_tarski : \iota \Rightarrow \iota$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k11_fomodel1 : \iota \Rightarrow \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k2_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v10_fomodel1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_fomodel1 : \iota \Rightarrow \iota$ be given. Let $k24_fomodel1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v6_fomodel1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 X1) \wedge \\ & (m1_subset_1 X1 (k1_zfmisc_1 X0)))) \Rightarrow (\forall X2. (m2_subset_1 \\ & X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1)) \end{aligned} \quad (1)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (2)$$

Assume the following.

$$(\neg v1_xboole_0 k4_ordinal1) \wedge (v3_ordinal1 k4_ordinal1) \quad (3)$$

Assume the following.

$$m1_subset_1 k5_numbers (k1_zfmisc_1 k1_numbers) \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v6_struct_0 X0) \wedge ((v11_fomodel1 X0) \wedge (l1_fomodel1 \\ & X0))) \Rightarrow ((v1_relat_1 (k25_fomodel1 X0)) \wedge (v1_funct_1 (k25_fomodel1 \\ & X0))) \end{aligned} \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.(X1 = k3_tarski\ X0) \Leftrightarrow (\forall X2.(X2 \in X1) \Leftrightarrow (\exists X3.(X2 \in X3) \wedge (X3 \in X0))) \quad (6)$$

Assume the following.

$$\forall X0.((v1_relat_1\ X0) \wedge (v1_funct_1\ X0)) \Rightarrow (\forall X1.(X1 = k10_xtuple_0\ X0) \Leftrightarrow (\forall X2.(X2 \in X1) \Leftrightarrow (\exists X3.(X3 \in k9_xtuple_0\ X0) \wedge (X2 = k1_funct_1\ X0\ X3)))) \quad (7)$$

Assume the following.

$$\forall X0.((\neg v6_struct_0\ X0) \wedge ((v11_fomodel1\ X0) \wedge (l1_fomodel1\ X0))) \Rightarrow (k27_fomodel1\ X0 = k3_tarski\ (k10_xtuple_0\ (k25_fomodel1\ X0))) \quad (8)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v6_struct_0\ X0) \wedge ((v11_fomodel1\ X0) \wedge (l1_fomodel1\ X0))) \Rightarrow (\forall X1.((v1_relat_1\ X1) \wedge (v1_funct_1\ X1)) \Rightarrow ((X1 = k25_fomodel1\ X0) \Leftrightarrow ((k9_xtuple_0\ X1 = k5_numbers) \wedge ((k1_funct_1\ X1\ k6_numbers = k11_fomodel1\ X0) \wedge (\forall X2.(v7_ordinal1\ X2) \Rightarrow (k1_funct_1\ X1\ (k2_xcmplx_0\ X2\ np_1) = k2_xboole_0\ (k3_tarski\ (ReplSep\ (toset\ (\lambda X3 : \iota.(v10_fomodel1\ X3\ X0) \wedge (m1_subset_1\ X3\ (k1_fomodel1\ X0))))))\ (\lambda X3 : \iota.v6_fomodel1\ X3\ X0)\ (\lambda X3 : \iota.k24_fomodel1\ X0\ X3\ (k1_funct_1\ X1\ X2))))\ (k1_funct_1\ X1\ X2)))))) \end{aligned} \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1_xboole_0\ X0) \Rightarrow ((m1_subset_1\ X1\ X0) \Leftrightarrow (X1 \in X0))) \wedge ((v1_xboole_0\ X0) \Rightarrow ((m1_subset_1\ X1\ X0) \Leftrightarrow (v1_xboole_0\ X1))) \quad (10)$$

Assume the following.

$$\forall X0.(v1_xboole_0\ X0) \Rightarrow (\forall X1.(m1_subset_1\ X1\ (k1_zfmisc_1\ X0)) \Rightarrow (v1_xboole_0\ X1)) \quad (11)$$

Theorem 1

$$\forall X0.\forall X1.((\neg v6_struct_0\ X1) \wedge ((v11_fomodel1\ X1) \wedge (l1_fomodel1\ X1))) \Rightarrow (\neg (X0 \in k27_fomodel1\ X1) \wedge (\forall X2.(m2_subset_1\ X2\ k1_numbers\ k5_numbers) \Rightarrow (\neg X0 \in k1_funct_1\ (k25_fomodel1\ X1\ X2))))$$