

l5_fomodel2

(TMZWnQQ3ZEecFwJNGdsgtDyvMAAtBDyvUFCV)

October 27, 2020

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 $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m3_fomodel2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k37_fomodel1 : \iota \Rightarrow \iota$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $v10_fomodel1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_fomodel1 : \iota \Rightarrow \iota$ be given. Let $m2_fomodel2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_fomodel2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k9_fomodel1 : \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $k6_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k2_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u2_struct_0 : \iota \Rightarrow \iota$ be given. Let $u3_struct_0 : \iota \Rightarrow \iota$ be given. Let $v9_fomodel1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X0 (k1_zfmisc_1 X1)) \Leftrightarrow (r1_tarski X0 X1) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (X0 \in X1) \Rightarrow (m1_subset_1 X0 X1) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (((\neg v6_struct_0 X0) \wedge ((v11_fomodel1 X0) \wedge (l1_fomodel1 X0))) \wedge ((\neg v1_xboole_0 X1) \wedge ((v10_fomodel1 X2 X0) \wedge (m1_subset_1 X2 (k1_fomodel1 X0))))) \Rightarrow (\forall X3. (m2_fomodel2 X3 X0 X1 X2) \Leftrightarrow (m1_fomodel2 X3 X0 X1 X2)) \quad (3)$$

Assume the following.

$$\forall X0. ((\neg v6_struct_0 X0) \wedge ((v11_fomodel1 X0) \wedge (l1_fomodel1 X0))) \Rightarrow (k37_fomodel1 X0 = k9_fomodel1 X0) \quad (4)$$

Assume the following.

$$v1_xboole_0 k1_xboole_0 \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.(((\neg v6_struct_0 X0)\wedge((v11_fomodel1 X0)\wedge(l1_fomodel1 X0)))\wedge(\neg v1_xboole_0 X1))\Rightarrow(\forall X2.(m3_fomodel2 X2 X0 X1)\Rightarrow((v1_relat_1 X2)\wedge(v1_funct_1 X2))) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.m1_subset_1 (k6_subset_1 X0 X1) (k1_zfmisc_1 X0) \quad (7)$$

Assume the following.

$$\forall X0.(l1_fomodel1 X0)\Rightarrow(k9_fomodel1 X0 = k6_subset_1 (u1_struct_0 X0) (k2_tarski (u2_struct_0 X0) (u3_struct_0 X0))) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.(r1_tarski X0 X1)\Leftrightarrow(\forall X2.(X2 \in X0)\Rightarrow(X2 \in X1)) \quad (9)$$

Assume the following.

$$\forall X0.(((\neg v6_struct_0 X0)\wedge((v11_fomodel1 X0)\wedge(l1_fomodel1 X0)))\Rightarrow(\forall X1.(\neg v1_xboole_0 X1)\Rightarrow(\forall X2.((v1_relat_1 X2)\wedge(v1_funct_1 X2))\Rightarrow((m3_fomodel2 X2 X0 X1)\Leftrightarrow(\forall X3.((v9_fomodel1 X3 X0)\wedge(m1_subset_1 X3 (k1_fomodel1 X0))\Rightarrow(m2_fomodel2 (k1_funct_1 X2 X3) X0 X1 X3))))))) \quad (10)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0)\wedge(v1_funct_1 X0))\Rightarrow(\forall X1.\forall X2.(((X1 \in k9_xtuple_0 X0)\Rightarrow((X2 = k1_funct_1 X0 X1)\Leftrightarrow(k4_tarski X1 X2 \in X0)))\wedge((\neg X1 \in k9_xtuple_0 X0)\Rightarrow((X2 = k1_funct_1 X0 X1)\Leftrightarrow(X2 = k1_xboole_0)))) \quad (11)$$

Assume the following.

$$\forall X0.(l1_fomodel1 X0)\Rightarrow(k1_fomodel1 X0 = u1_struct_0 X0) \quad (12)$$

Assume the following.

$$\forall X0.(l1_fomodel1 X0)\Rightarrow(\forall X1.(m1_subset_1 X1 (k1_fomodel1 X0))\Rightarrow((v9_fomodel1 X1 X0)\Leftrightarrow(X1 \in k9_fomodel1 X0))) \quad (13)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(((\neg v6_struct_0 X0)\wedge((v11_fomodel1 X0)\wedge(l1_fomodel1 X0)))\wedge((\neg v1_xboole_0 X1)\wedge((v9_fomodel1 X2 X0)\wedge(m1_subset_1 X2 (k1_fomodel1 X0))))))\Rightarrow(\forall X3.(m1_fomodel2 X3 X0 X1 X2)\Rightarrow(\neg v1_xboole_0 X3)) \quad (14)$$

Assume the following.

$$\forall X0.((\neg v6_struct_0 X0) \wedge ((v11_fomodel1 X0) \wedge (l1_fomodel1 X0))) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_fomodel1 X0)) \Rightarrow ((v9_fomodel1 X1 X0) \Rightarrow (v10_fomodel1 X1 X0))) \quad (15)$$

Theorem 1

$$\forall X0.((\neg v6_struct_0 X0) \wedge ((v11_fomodel1 X0) \wedge (l1_fomodel1 X0))) \Rightarrow (\forall X1.(\neg v1_xboole_0 X1) \Rightarrow (\forall X2.(m3_fomodel2 X2 X0 X1) \Rightarrow (r1_tarski (k37_fomodel1 X0) (k9_xtuple_0 X2))))$$