

l29_fomodel4

(TMZeLEkzuwKeoQBvflSxiNCYsfooN9pewAz)

October 27, 2020

Let $v7_ordinal1 : \iota \Rightarrow o$ be given. 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 $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k9_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_setfam_1 : \iota \Rightarrow \iota$ be given. Let $k1_fomodel4 : \iota \Rightarrow \iota$ be given. Let $v4_fomodel4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3_fomodel4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_fomodel4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_setfam_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k13_lang1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_fomodel4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. ((r1_tarski X0 X1) \wedge (r1_tarski X1 X2)) \Rightarrow (r1_tarski X0 X2) \quad (1)$$

Assume the following.

$$\forall X0. k9_setfam_1 X0 = k1_zfmisc_1 X0 \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0. (v7_ordinal1 X0) \Rightarrow (\forall X1. \forall X2. ((\neg v6_struct_0 \\ X2) \wedge ((v11_fomodel1 X2) \wedge (l1_fomodel1 X2))) \Rightarrow (\forall X3. (m1_subset_1 \\ X3 (k1_zfmisc_1 (k9_funct_2 (k9_setfam_1 (k1_fomodel4 X2)) (k9_setfam_1 \\ (k1_fomodel4 X2)))))) \Rightarrow (r1_tarski (k1_funct_1 (k3_fomodel4 X2 \\ X3 X0) X1) (k5_setfam_1 (k1_fomodel4 X2) (k7_relset_1 (k9_setfam_1 \\ (k1_fomodel4 X2)) (k9_setfam_1 (k1_fomodel4 X2)) (k13_lang1 (\\ k9_setfam_1 (k1_fomodel4 X2)) (k2_fomodel4 X2 X3)) (k1_tarski \\ X1)))))) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. (r1_tarski (k1_tarski X0) X1) \Leftrightarrow (X0 \in X1) \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0.(v7_ordinal1\ X0) \Rightarrow (\forall X1.((\neg v6_struct_0\ X1) \wedge \\ & ((v11_fomodel1\ X1) \wedge (l1_fomodel1\ X1))) \Rightarrow (\forall X2.(m1_subset_1 \\ & X2\ (k1_zfmisc_1\ (k9_funct_2\ (k9_setfam_1\ (k1_fomodel4\ X1))\ (k9_setfam_1 \\ & (k1_fomodel4\ X1)))))) \Rightarrow (\forall X3.\forall X4.(v4_fomodel4\ X4 \\ & X0\ X1\ X2\ X3) \Leftrightarrow (X4 \in k1_funct_1\ (k3_fomodel4\ X1\ X2\ X0)\ X3)))) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v6_struct_0\ X0) \wedge ((v11_fomodel1\ X0) \wedge (l1_fomodel1 \\ & X0))) \Rightarrow (\forall X1.(m1_subset_1\ X1\ (k1_zfmisc_1\ (k9_funct_2\ (\\ & k9_setfam_1\ (k1_fomodel4\ X0))\ (k9_setfam_1\ (k1_fomodel4\ X0)))))) \Rightarrow \\ & (\forall X2.\forall X3.(v3_fomodel4\ X3\ X0\ X1\ X2) \Leftrightarrow (r1_tarski\ X3 \\ & (k5_setfam_1\ (k1_fomodel4\ X0)\ (k7_relset_1\ (k9_setfam_1\ (k1_fomodel4 \\ & X0))\ (k9_setfam_1\ (k1_fomodel4\ X0))\ (k13_lang1\ (k9_setfam_1\ (\\ & k1_fomodel4\ X0))\ (k2_fomodel4\ X0\ X1))\ (k1_tarski\ X2)))))) \end{aligned} \quad (6)$$

Theorem 1

$$\begin{aligned} & \forall X0.(v7_ordinal1\ X0) \Rightarrow (\forall X1.\forall X2.\forall X3. \\ & ((\neg v6_struct_0\ X3) \wedge ((v11_fomodel1\ X3) \wedge (l1_fomodel1\ X3))) \Rightarrow (\\ & \forall X4.(m1_subset_1\ X4\ (k1_zfmisc_1\ (k9_funct_2\ (k9_setfam_1 \\ & (k1_fomodel4\ X3))\ (k9_setfam_1\ (k1_fomodel4\ X3)))))) \Rightarrow ((v4_fomodel4 \\ & X1\ X0\ X3\ X4\ X2) \Rightarrow (v3_fomodel4\ (k1_tarski\ X1)\ X3\ X4\ X2)))) \end{aligned}$$