

l35_fomodel4

(TMKceRB4Vnjoy8HieyvneaiB6ebeU5GVFjKr)

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 $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ 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 $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3_fomodel4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v6_fomodel4 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_setfam_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k13_lang1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_fomodel4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $k3_tarski : \iota \Rightarrow \iota$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ 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 $k3_fomodel4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ 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.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v6_struct_0 X1) \wedge ((v11_fomodel1 X1) \wedge \\ & (l1_fomodel1 X1))) \Rightarrow (\forall X2. (m1_subset_1 X2 (k1_zfmisc_1 \\ & (k9_funct_2 (k9_setfam_1 (k1_fomodel4 X1)) (k9_setfam_1 (k1_fomodel4 \\ & X1)))))) \Rightarrow (\forall X3. (m1_subset_1 X3 (k1_zfmisc_1 (k9_funct_2 \\ & (k9_setfam_1 (k1_fomodel4 X1)) (k9_setfam_1 (k1_fomodel4 X1)))))) \Rightarrow \\ & ((r1_tarski X2 X3) \Rightarrow (((\neg v6_fomodel4 X3 X1) \wedge (\neg v6_fomodel4 X2 X1)) \vee \\ & (r1_tarski (k5_setfam_1 (k1_fomodel4 X1) (k7_relset_1 (k9_setfam_1 \\ & (k1_fomodel4 X1)) (k9_setfam_1 (k1_fomodel4 X1)) (k13_lang1 (\\ & k9_setfam_1 (k1_fomodel4 X1)) (k2_fomodel4 X1 X2)) (k1_tarski \\ & X0))) (k5_setfam_1 (k1_fomodel4 X1) (k7_relset_1 (k9_setfam_1 \\ & (k1_fomodel4 X1)) (k9_setfam_1 (k1_fomodel4 X1)) (k13_lang1 (\\ & k9_setfam_1 (k1_fomodel4 X1)) (k2_fomodel4 X1 X3)) (k1_tarski \\ & X0))))))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. ((\neg v6_struct_0 X1) \wedge ((v11_fomodel1 X1) \wedge \\
& (l1_fomodel1 X1))) \Rightarrow (\forall X2. (m1_subset_1 X2 (k1_zfmisc_1 \\
& (k9_funct_2 (k9_setfam_1 (k1_fomodel4 X1)) (k9_setfam_1 (k1_fomodel4 \\
& X1)))))) \Rightarrow (k5_setfam_1 (k1_fomodel4 X1) (k7_relset_1 (k9_setfam_1 \\
& (k1_fomodel4 X1)) (k9_setfam_1 (k1_fomodel4 X1)) (k13_lang1 (\\
& k9_setfam_1 (k1_fomodel4 X1)) (k2_fomodel4 X1 X2)) (k1_tarski \\
& X0)) = k3_tarski (ReplSep (toset (\lambda X3 : \iota. m2_subset_1 X3 k1_numbers \\
& k5_numbers)) (\lambda X3 : \iota. True) (\lambda X3 : \iota. k1_funct_1 (k3_fomodel4 \\
& X1 X2 X3) X0))))))
\end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned}
& \forall X0. ((\neg v6_struct_0 X0) \wedge ((v11_fomodel1 X0) \wedge (l1_fomodel1 \\
& X0))) \Rightarrow (\forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (k9_funct_2 (\\
& k9_setfam_1 (k1_fomodel4 X0)) (k9_setfam_1 (k1_fomodel4 X0)))))) \Rightarrow \\
& (\forall X2. \forall X3. (v3_fomodel4 X3 X0 X1 X2) \Leftrightarrow (r1_tarski X3 \\
& (k5_setfam_1 (k1_fomodel4 X0) (k7_relset_1 (k9_setfam_1 (k1_fomodel4 \\
& X0)) (k9_setfam_1 (k1_fomodel4 X0)) (k13_lang1 (k9_setfam_1 (\\
& k1_fomodel4 X0)) (k2_fomodel4 X0 X1)) (k1_tarski X2))))))
\end{aligned} \tag{4}$$

Theorem 1

$$\begin{aligned}
& \forall X0. \forall X1. \forall X2. ((\neg v6_struct_0 X2) \wedge ((v11_fomodel1 \\
& X2) \wedge (l1_fomodel1 X2))) \Rightarrow (\forall X3. (m1_subset_1 X3 (k1_zfmisc_1 \\
& (k9_funct_2 (k9_setfam_1 (k1_fomodel4 X2)) (k9_setfam_1 (k1_fomodel4 \\
& X2)))))) \Rightarrow (\forall X4. (m1_subset_1 X4 (k1_zfmisc_1 (k9_funct_2 \\
& (k9_setfam_1 (k1_fomodel4 X2)) (k9_setfam_1 (k1_fomodel4 X2)))))) \Rightarrow \\
& (((r1_tarski X3 X4) \wedge (v3_fomodel4 X0 X2 X3 X1)) \Rightarrow (((\neg v6_fomodel4 \\
& X4 X2) \wedge (\neg v6_fomodel4 X3 X2)) \vee (v3_fomodel4 X0 X2 X4 X1))))
\end{aligned}$$