

l32_fomodel4

(TMUqY3C9AEVuyfa7j4qFF9GifFuvYicVpJS)

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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 $v2_fomodel4 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v6_fomodel4 : \iota \Rightarrow \iota \Rightarrow o$ 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 $v1_xboole_0 : \iota \Rightarrow o$ 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 $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m2_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ 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.

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

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. ((\neg v1_xboole_0 X0) \wedge \\ & (((v1_funct_1 X2) \wedge ((v1_funct_2 X2 X0 X1) \wedge (m1_subset_1 X2 (k1_zfmisc_1 \\ & (k2_zfmisc_1 X0 X1)))))) \wedge (m1_subset_1 X3 X0))) \Rightarrow (k3_funct_2 X0 \\ & X1 X2 X3 = k1_funct_1 X2 X3) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned}
& \forall X0.(v7_ordinal1\ X0) \Rightarrow (\forall X1.((\neg v6_struct_0\ X1) \wedge \\
& ((v11_fomodel1\ X1) \wedge (l1_fomodel1\ X1))) \Rightarrow (\forall X2.(m1_subset_1 \\
& X2\ (k1_zfmisc_1\ (k9_funct_2\ (k9_setfam_1\ (k1_fomodel4\ X1))\ (k9_setfam_1 \\
& (k1_fomodel4\ X1)))) \Rightarrow (\forall X3.(m1_subset_1\ X3\ (k1_zfmisc_1 \\
& (k9_funct_2\ (k9_setfam_1\ (k1_fomodel4\ X1))\ (k9_setfam_1\ (k1_fomodel4 \\
& X1)))) \Rightarrow (\forall X4.(m1_subset_1\ X4\ (k1_zfmisc_1\ (k1_fomodel4 \\
& X1))) \Rightarrow (\forall X5.(m1_subset_1\ X5\ (k1_zfmisc_1\ (k1_fomodel4 \\
& X1))) \Rightarrow (((r1_tarski\ X4\ X5) \wedge (r1_tarski\ X2\ X3)) \Rightarrow (((\neg v6_fomodel4 \\
& X3\ X1) \wedge (\neg v6_fomodel4\ X2\ X1)) \vee (r1_tarski\ (k3_funct_2\ (k1_zfmisc_1 \\
& (k1_fomodel4\ X1))\ (k9_setfam_1\ (k1_fomodel4\ X1))\ (k3_fomodel4 \\
& X1\ X2\ X0)\ X4)\ (k3_funct_2\ (k1_zfmisc_1\ (k1_fomodel4\ X1))\ (k9_setfam_1 \\
& (k1_fomodel4\ X1))\ (k3_fomodel4\ X1\ X3\ X0)\ X5)))))))))
\end{aligned} \tag{4}$$

Assume the following.

$$\forall X0.\neg v1_xboole_0\ (k1_zfmisc_1\ X0) \tag{5}$$

Assume the following.

$$\begin{aligned}
& \forall X0.\forall X1.\forall X2.((\neg v1_xboole_0\ X1) \wedge (m1_funct_2 \\
& X2\ X0\ X1)) \Rightarrow (\forall X3.(m2_funct_2\ X3\ X0\ X1\ X2) \Rightarrow ((v1_funct_1\ X3) \wedge \\
& ((v1_funct_2\ X3\ X0\ X1) \wedge (m1_subset_1\ X3\ (k1_zfmisc_1\ (k2_zfmisc_1 \\
& X0\ X1))))))
\end{aligned} \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.(\neg v1_xboole_0\ X1) \Rightarrow (m1_funct_2\ (k9_funct_2\ X0\ X1)\ X0\ X1) \tag{7}$$

Assume the following.

$$\begin{aligned}
& \forall X0.\forall X1.\forall X2.(((\neg v6_struct_0\ X0) \wedge ((v11_fomodel1 \\
& X0) \wedge (l1_fomodel1\ X0))) \wedge ((m1_subset_1\ X1\ (k1_zfmisc_1\ (k9_funct_2 \\
& (k9_setfam_1\ (k1_fomodel4\ X0))\ (k9_setfam_1\ (k1_fomodel4\ X0)))) \wedge \\
& (v7_ordinal1\ X2))) \Rightarrow (m2_funct_2\ (k3_fomodel4\ X0\ X1\ X2)\ (k9_setfam_1 \\
& (k1_fomodel4\ X0))\ (k9_setfam_1\ (k1_fomodel4\ X0))\ (k9_funct_2 \\
& (k9_setfam_1\ (k1_fomodel4\ X0))\ (k9_setfam_1\ (k1_fomodel4\ X0))))
\end{aligned} \tag{8}$$

Assume the following.

$$\forall X0.((\neg v6_struct_0\ X0) \wedge ((v11_fomodel1\ X0) \wedge (l1_fomodel1\ X0))) \Rightarrow (\forall X1.(v2_fomodel4\ X1\ X0) \Leftrightarrow (r1_tarski\ X1\ (k1_fomodel4\ X0))) \tag{9}$$

Theorem 1

$$\begin{aligned} & \forall X0.(v7_ordinal1\ X0) \Rightarrow (\forall X1.((\neg v6_struct_0\ X1) \wedge \\ & ((v11_fomodel1\ X1) \wedge (l1_fomodel1\ X1))) \Rightarrow (\forall X2.(m1_subset_1 \\ X2\ (k1_zfmisc_1\ (k9_funct_2\ (k9_setfam_1\ (k1_fomodel4\ X1))\ (k9_setfam_1 \\ & (k1_fomodel4\ X1)))))) \Rightarrow (\forall X3.(m1_subset_1\ X3\ (k1_zfmisc_1 \\ & (k9_funct_2\ (k9_setfam_1\ (k1_fomodel4\ X1))\ (k9_setfam_1\ (k1_fomodel4 \\ & X1)))))) \Rightarrow (\forall X4.(v2_fomodel4\ X4\ X1) \Rightarrow (\forall X5.(v2_fomodel4 \\ & X5\ X1) \Rightarrow (((r1_tarski\ X4\ X5) \wedge (r1_tarski\ X2\ X3)) \Rightarrow (((\neg v6_fomodel4 \\ & X3\ X1) \wedge (\neg v6_fomodel4\ X2\ X1)) \vee (r1_tarski\ (k1_funct_1\ (k3_fomodel4 \\ & X1\ X2\ X0)\ X4)\ (k1_funct_1\ (k3_fomodel4\ X1\ X3\ X0)\ X5)))))))) \end{aligned}$$