

t53_fomodel0
(TMWSweqgvZ3JYt7bae4aiFRcEybrvEEq6G9)

October 27, 2020

Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_finseq_1 : \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_finseq_2 : \iota \Rightarrow \iota$ be given. Let $v5_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_setfam_1 : \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_fomodel0 : \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k13_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k2_fomodel0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (\neg v1_xboole_0 X1) \Rightarrow (\forall X2. (\neg v1_xboole_0 \\ & X2) \Rightarrow (\forall X3. ((v1_relat_1 X3) \wedge ((v1_funct_1 X3) \wedge (v1_finseq_1 \\ & X3))) \Rightarrow ((\neg (k1_funct_1 (k8_fomodel0 X1) X0 \neq k1_xboole_0) \wedge ((k1_funct_1 \\ & (k8_fomodel0 X2) X0 \neq k1_xboole_0) \wedge (k1_funct_1 (k8_fomodel0 X1) \\ & X0 \neq k1_funct_1 (k8_fomodel0 X2) X0))) \wedge (((v5_relat_1 X3 (k3_finseq_2 \\ & k1_xboole_0)) \Rightarrow (k1_funct_1 (k8_fomodel0 X1) X3 = k1_xboole_0)) \wedge \\ & (((k1_funct_1 (k8_fomodel0 X1) X3 = k1_xboole_0) \wedge (v5_relat_1 \\ & X3 (k3_finseq_2 X1))) \Rightarrow (v5_relat_1 X3 (k3_finseq_2 k1_xboole_0))))))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X0 (k1_zfmisc_1 X1)) \Leftrightarrow (r1_tarski X0 X1) \quad (2)$$

Assume the following.

$$\forall X0. k3_finseq_2 X0 = k13_finseq_1 X0 \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X1 (k1_zfmisc_1 X0)) \Rightarrow (k2_fomodel0 X0 X1 = k13_finseq_1 X1) \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (m1_subset_1 X1 (k1_zfmisc_1 X0)) \Rightarrow ((\neg v1_xboole_0 \\ & (k2_fomodel0 X0 X1)) \wedge (m1_subset_1 (k2_fomodel0 X0 X1) (k1_zfmisc_1 \\ & (k3_finseq_2 X0)))) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (m1_subset_1 X1 (k1_zfmisc_1 X0)) \Rightarrow (\forall X2. \\ & ((v1_relat_1 X2) \wedge (v5_relat_1 X2 X1)) \Rightarrow ((v1_relat_1 X2) \wedge (v5_relat_1 \\ & X2 X0))) \end{aligned} \quad (6)$$

Theorem 1

$$\begin{aligned} & \forall X0. \forall X1. (\neg v1_xboole_0 X1) \Rightarrow (\forall X2. (\neg v1_xboole_0 \\ & X2) \Rightarrow (\forall X3. ((v1_relat_1 X3) \wedge ((v1_funct_1 X3) \wedge (v1_finseq_1 \\ & X3))) \Rightarrow (((r1_tarski X1 X2) \wedge (r1_tarski X0 (k3_finseq_2 X1)) \wedge \\ & (v5_relat_1 X3 X0) \wedge (v1_setfam_1 X0))) \Rightarrow ((X3 = k1_xboole_0) \vee \\ & k1_funct_1 (k8_fomodel0 X1) X3 = k1_funct_1 (k8_fomodel0 X2) X3)))) \end{aligned}$$