

l100_fomodel0

(TMY9bYP7wxFhM9NNDTGtQ4p8YX4DAy85ufd)

October 27, 2020

Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k20_fomodel0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k12_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k9_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k5_finseq_1 : \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v5_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_finseq_1 : \iota \Rightarrow o$ be given. Let $k19_fomodel0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k17_fomodel0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k18_fomodel0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_numbers : \iota$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_finseq_2 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. (m2_finseq_1 X1 X0) \Leftrightarrow (m1_finseq_1 X1 X0) \quad (1)$$

Assume the following.

$$\forall X0. k9_finseq_1 X0 = k5_finseq_1 X0 \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. ((\neg v1_xboole_0 X0) \wedge \\ & ((m1_subset_1 X2 X0) \wedge ((v1_relat_1 X3) \wedge ((v5_relat_1 X3 X0) \wedge ((\\ & v1_funct_1 X3) \wedge (v1_finseq_1 X3)))))) \Rightarrow (k19_fomodel0 X0 X1 X2 X3 = \\ & k17_fomodel0 X1 X2 X3) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. ((v1_relat_1 X3) \wedge \\ & ((v5_relat_1 X3 X0) \wedge ((v1_funct_1 X3) \wedge (v1_finseq_1 X3)))) \Rightarrow (k18_fomodel0 \\ & X0 X1 X2 X3 = k17_fomodel0 X1 X2 X3) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v1_xboole_0 X0) \wedge (m1_subset_1 X1 X0)) \Rightarrow \\ & (k12_finseq_1 X0 X1 = k5_finseq_1 X1) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (\neg v1_xboole_0 X1) \Rightarrow (\forall X2. (m1_subset_1 \\ & X2 X1) \Rightarrow (\forall X3. (m1_subset_1 X3 X1) \Rightarrow (((X2 = X3) \Rightarrow (k18_fomodel0 \\ & X1 X3 X0 (k12_finseq_1 X1 X2) = k9_finseq_1 X0)) \wedge ((X2 \neq X3) \Rightarrow (k18_fomodel0 \\ & X1 X3 X0 (k12_finseq_1 X1 X2) = k12_finseq_1 X1 X2)))))) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (m2_finseq_1 X1 X0) \Rightarrow ((v1_funct_1 X1) \wedge (\\ & (v1_finseq_1 X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers \\ & X0)))))) \end{aligned} \quad (7)$$

Assume the following.

$$\forall X0. (v1_relat_1 (k9_finseq_1 X0)) \wedge (v1_funct_1 (k9_finseq_1 X0)) \quad (8)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. ((\neg v1_xboole_0 X0) \wedge (m1_subset_1 \\ & X2 X0)) \Rightarrow ((v1_funct_1 (k20_fomodel0 X0 X1 X2)) \wedge ((v1_funct_2 (k20_fomodel0 \\ & X0 X1 X2) (k3_finseq_2 X0) (k3_finseq_2 X0)) \wedge (m1_subset_1 (k20_fomodel0 \\ & X0 X1 X2) (k1_zfmisc_1 (k2_zfmisc_1 (k3_finseq_2 X0) (k3_finseq_2 \\ & X0)))))) \end{aligned} \quad (9)$$

Assume the following.

$$\forall X0. \forall X1. ((\neg v1_xboole_0 X0) \wedge (m1_subset_1 X1 X0)) \Rightarrow (m2_finseq_1 (k12_finseq_1 X0 X1) X0) \quad (10)$$

Assume the following.

$$\begin{aligned} & \forall X0. (\neg v1_xboole_0 X0) \Rightarrow (\forall X1. \forall X2. (m1_subset_1 \\ & X2 X0) \Rightarrow (\forall X3. ((v1_funct_1 X3) \wedge ((v1_funct_2 X3 (k3_finseq_2 \\ & X0) (k3_finseq_2 X0)) \wedge (m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 \\ & (k3_finseq_2 X0) (k3_finseq_2 X0)))))) \Rightarrow ((X3 = k20_fomodel0 X0 \\ & X1 X2) \Leftrightarrow (\forall X4. ((v1_relat_1 X4) \wedge ((v5_relat_1 X4 X0) \wedge ((v1_funct_1 \\ & X4) \wedge (v1_finseq_1 X4)))) \Rightarrow (k1_funct_1 X3 X4 = k19_fomodel0 X0 X1 \\ & X2 X4)))))) \end{aligned} \quad (11)$$

Assume the following.

$$\forall X0. \forall X1. (m1_finseq_1 X1 X0) \Rightarrow (v5_relat_1 X1 X0) \quad (12)$$

Theorem 1

$$\begin{aligned} & \forall X0. (\neg v1_xboole_0 X0) \Rightarrow (\forall X1. (m1_subset_1 X1 X0) \Rightarrow \\ & (\forall X2. (m1_subset_1 X2 X0) \Rightarrow (\forall X3. (m1_subset_1 X3 X0) \Rightarrow \\ & (((X1 = X2) \Rightarrow (k1_funct_1 (k20_fomodel0 X0 X2 X3) (k12_finseq_1 X0 \\ & X1) = k12_finseq_1 X0 X3)) \wedge ((X1 \neq X2) \Rightarrow (k1_funct_1 (k20_fomodel0 \\ & X0 X2 X3) (k12_finseq_1 X0 X1) = k12_finseq_1 X0 X1)))))) \end{aligned}$$