

t23_seqm_3

(TMJPG6YRjLczSaBNTeLFotbvCm2fXV6EWyi)

October 27, 2020

Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $k1_numbers : \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v6_valued_0 : \iota \Rightarrow o$ be given. Let $m2_valued_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m1_valued_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v2_valued_0 : \iota \Rightarrow o$ be given. Let $v5_valued_0 : \iota \Rightarrow o$ be given. Let $k3_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v6_membered : \iota \Rightarrow o$ be given. Let $v4_valued_0 : \iota \Rightarrow o$ be given. Let $v3_membered : \iota \Rightarrow o$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_partfun1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3_valued_0 : \iota \Rightarrow o$ be given. Let $v2_membered : \iota \Rightarrow o$ be given. Let $v5_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v1_xboole_0 X0) \wedge ((v1_funct_1 X1) \wedge \\ & (v1_funct_2 X1 k5_numbers X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 \\ & k5_numbers X0)))))) \Rightarrow (\forall X2. (m2_valued_0 X2 X0 X1) \Leftrightarrow (m1_valued_0 \\ & X2 X1)) \end{aligned} \tag{1}$$

Assume the following.

$$k5_numbers = k4_ordinal1 \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge ((\\ & v2_valued_0 X0) \wedge (v6_valued_0 X0)))) \wedge ((v1_relat_1 X1) \wedge ((v1_funct_1 \\ & X1) \wedge ((v2_valued_0 X1) \wedge (v5_valued_0 X1)))))) \Rightarrow ((v1_relat_1 (k3_relat_1 \\ & X1 X0)) \wedge (v6_valued_0 (k3_relat_1 X1 X0))) \end{aligned} \tag{3}$$

Assume the following.

$$\forall X0. \forall X1. (v6_membered X1) \Rightarrow (v4_valued_0 (k2_zfmisc_1 X0 X1)) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.v1_relat_1 (k2_zfmisc_1 X0 X1) \quad (5)$$

Assume the following.

$$v6_membered k4_ordinal1 \quad (6)$$

Assume the following.

$$v3_membered k1_numbers \quad (7)$$

Assume the following.

$$\neg v1_xboole_0 k1_numbers \quad (8)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1_relat_1 X0)\wedge((v4_relat_1 X0 k5_numbers)\wedge((v1_funct_1 \\ X0)\wedge(v1_partfun1 X0 k5_numbers))))\Rightarrow(\forall X1.((v1_relat_1 \\ X1)\wedge((v4_relat_1 X1 k5_numbers)\wedge((v1_funct_1 X1)\wedge(v1_partfun1 \\ X1 k5_numbers))))\Rightarrow((m1_valued_0 X1 X0)\Leftrightarrow(\exists X2.((v1_funct_1 \\ X2)\wedge((v1_funct_2 X2 k5_numbers k5_numbers)\wedge((v5_valued_0 X2)\wedge \\ (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers k5_numbers))))))\wedge \\ (X1 = k3_relat_1 X2 X0)))) \end{aligned} \quad (9)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0)\wedge(v4_valued_0 X0))\Rightarrow((v1_relat_1 \\ X0)\wedge(v3_valued_0 X0)) \quad (10)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0)\wedge(v3_valued_0 X0))\Rightarrow((v1_relat_1 \\ X0)\wedge(v2_valued_0 X0)) \quad (11)$$

Assume the following.

$$\forall X0.(v3_membered X0)\Rightarrow(v2_membered X0) \quad (12)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.(\neg v1_xboole_0 X1)\Rightarrow(\forall X2.(m1_subset_1 \\ X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))\Rightarrow((v1_funct_2 X2 X0 X1)\Rightarrow(\\ v1_partfun1 X2 X0))) \end{aligned} \quad (13)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 \\ (k2_zfmisc_1 X0 X1)))\Rightarrow((v4_relat_1 X2 X0)\wedge(v5_relat_1 X2 X1)) \quad (14)$$

Assume the following.

$$\forall X0.(v1_relat_1 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 X0)) \Rightarrow (v1_relat_1 X1)) \quad (15)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1))) \Rightarrow (v1_relat_1 X2) \quad (16)$$

Assume the following.

$$\forall X0.\forall X1.(v2_membered X1) \Rightarrow (\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1))) \Rightarrow (v2_valued_0 X2)) \quad (17)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge (v2_valued_0 X0)) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 X0)) \Rightarrow (v2_valued_0 X1)) \quad (18)$$

Theorem 1

$$\begin{aligned} & \forall X0.((v1_funct_1 X0) \wedge ((v1_funct_2 X0 k5_numbers k1_numbers) \wedge \\ & (m1_subset_1 X0 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers k1_numbers)))))) \Rightarrow \\ & (\forall X1.((v1_funct_1 X1) \wedge ((v1_funct_2 X1 k5_numbers k1_numbers) \wedge \\ & (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers k1_numbers)))))) \Rightarrow \\ & (((v6_valued_0 X0) \wedge (m2_valued_0 X1 k1_numbers X0)) \Rightarrow (v6_valued_0 \\ & X1))) \end{aligned}$$