

t20_seq_4

(TMTnuFztqsSddusWF4abUVrJeVfiKJuqfqQ)

October 27, 2020

Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k5_numbers : \iota$ 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 $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2_comseq_2 : \iota \Rightarrow o$ be given. Let $k2_seq_2 : \iota \Rightarrow \iota$ be given. Let $k1_valued_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ 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 $k4_ordinal1 : \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k9_nat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((v1_funct_1 X0) \wedge ((v1_funct_2 X0 k5_numbers k1_numbers) \wedge \\ & (m1_subset_1 X0 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers k1_numbers)))))) \Rightarrow \\ & (\forall X1.((v1_funct_1 X1) \wedge ((v1_funct_2 X1 k5_numbers k1_numbers) \wedge \\ & (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers k1_numbers)))))) \Rightarrow \\ & (((m2_valued_0 X0 k1_numbers X1) \wedge (v2_comseq_2 X1)) \Rightarrow (k2_seq_2 \\ & X0 = k2_seq_2 X1))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 X1) \wedge \\ & (m1_subset_1 X1 (k1_zfmisc_1 X0)))) \Rightarrow (\forall X2. (m2_subset_1 \\ & X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1)) \end{aligned} \tag{2}$$

Assume the following.

$$k5_numbers = k4_ordinal1 \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. ((\neg v1_xboole_0 X0) \wedge ((v1_funct_1 \\ & X1) \wedge ((v1_funct_2 X1 k5_numbers X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 \\ & (k2_zfmisc_1 k5_numbers X0)))))) \wedge (v7_ordinal1 X2)) \Rightarrow (k1_valued_0 \\ & X0 X1 X2 = k9_nat_1 X1 X2) \end{aligned} \tag{4}$$

Assume the following.

$$(\neg v1_xboole_0\ k4_ordinal1) \wedge (v3_ordinal1\ k4_ordinal1) \quad (5)$$

Assume the following.

$$\neg v1_xboole_0\ k1_numbers \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v1_xboole_0\ X0) \wedge ((v1_funct_1\ X1) \wedge \\ & (v1_funct_2\ X1\ k5_numbers\ X0) \wedge (m1_subset_1\ X1\ (k1_zfmisc_1\ (k2_zfmisc_1 \\ & k5_numbers\ X0)))))) \Rightarrow (\forall X2. (m2_valued_0\ X2\ X0\ X1) \Rightarrow ((v1_funct_1 \\ & X2) \wedge ((v1_funct_2\ X2\ k5_numbers\ X0) \wedge (m1_subset_1\ X2\ (k1_zfmisc_1 \\ & (k2_zfmisc_1\ k5_numbers\ X0)))))) \end{aligned} \quad (7)$$

Assume the following.

$$m1_subset_1\ k5_numbers\ (k1_zfmisc_1\ k1_numbers) \quad (8)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. ((\neg v1_xboole_0\ X0) \wedge ((v1_funct_1 \\ & X1) \wedge ((v1_funct_2\ X1\ k5_numbers\ X0) \wedge (m1_subset_1\ X1\ (k1_zfmisc_1 \\ & (k2_zfmisc_1\ k5_numbers\ X0)))))) \wedge (v7_ordinal1\ X2)) \Rightarrow (m2_valued_0 \\ & (k1_valued_0\ X0\ X1\ X2)\ X0\ X1) \end{aligned} \quad (9)$$

Assume the following.

$$\forall X0. (m1_subset_1\ X0\ k4_ordinal1) \Rightarrow (v7_ordinal1\ X0) \quad (10)$$

Assume the following.

$$\forall X0. (v1_xboole_0\ X0) \Rightarrow (\forall X1. (m1_subset_1\ X1\ (k1_zfmisc_1\ X0)) \Rightarrow (v1_xboole_0\ X1)) \quad (11)$$

Theorem 1

$$\begin{aligned} & \forall X0. (m2_subset_1\ X0\ k1_numbers\ k5_numbers) \Rightarrow (\forall X1. \\ & ((v1_funct_1\ X1) \wedge ((v1_funct_2\ X1\ k5_numbers\ k1_numbers) \wedge (m1_subset_1 \\ & X1\ (k1_zfmisc_1\ (k2_zfmisc_1\ k5_numbers\ k1_numbers)))))) \Rightarrow ((v2_comseq_2 \\ & X1) \Rightarrow (k2_seq_2\ (k1_valued_0\ k1_numbers\ X1\ X0) = k2_seq_2\ X1)) \end{aligned}$$