

t128_seq_4

(TMQe7sowjUrCCTLc6Bim63m1J4VeihZFWWhW)

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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 $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k14_seq_4 : \iota \Rightarrow \iota$ be given. Let $k26_seq_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m2_finseq_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_numbers : \iota$ be given. Let $k22_seq_4 : \iota \Rightarrow \iota$ be given. Let $k19_seq_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $k5_seq_4 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (m1_subset_1 X1 (k1_zfmisc_1 X0)) \Rightarrow (\forall X2. \\ & (m1_subset_1 X2 (k1_zfmisc_1 X0)) \Rightarrow ((\forall X3. (m1_subset_1 \\ & X3 X0) \Rightarrow ((X3 \in X1) \Leftrightarrow (X3 \in X2))) \Rightarrow (X1 = X2))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. (m2_subset_1 X0 k1_numbers k5_numbers) \Rightarrow (\forall X1. \\ & (m2_finseq_2 X1 k2_numbers (k14_seq_4 X0)) \Rightarrow (\forall X2. (m2_finseq_2 \\ & X2 k2_numbers (k14_seq_4 X0)) \Rightarrow (k22_seq_4 (k19_seq_4 X0 X1 X2) = \\ & k22_seq_4 (k19_seq_4 X0 X2 X1)))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 X1) \wedge \\ & (m1_subset_1 X1 (k1_zfmisc_1 X0)))) \Rightarrow (\forall X2. (m2_subset_1 \\ & X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1)) \end{aligned} \quad (3)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (4)$$

Assume the following.

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

Assume the following.

$$m1_subset_1 k5_numbers (k1_zfmisc_1 k1_numbers) \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. ((m1_subset_1 X0 k5_numbers) \wedge \\ & ((m1_subset_1 X1 (k1_zfmisc_1 (k14_seq_4 X0))) \wedge (m1_subset_1 \\ & X2 (k1_zfmisc_1 (k14_seq_4 X0)))) \Rightarrow (m1_subset_1 (k26_seq_4 X0 \\ & X1 X2) k1_numbers) \end{aligned} \quad (7)$$

Assume the following.

$$\begin{aligned} & \forall X0. (m2_subset_1 X0 k1_numbers k5_numbers) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (k1_zfmisc_1 (k14_seq_4 X0))) \Rightarrow (\forall X2. (m1_subset_1 \\ & X2 (k1_zfmisc_1 (k14_seq_4 X0))) \Rightarrow (\forall X3. (m1_subset_1 X3 \\ & k1_numbers) \Rightarrow ((X3 = k26_seq_4 X0 X1 X2) \Leftrightarrow (\forall X4. (m1_subset_1 \\ & X4 (k1_zfmisc_1 k1_numbers) \Rightarrow ((X4 = ReplSep2 (toset (\lambda X5 : \iota. \\ & m2_finseq_2 X5 k2_numbers (k14_seq_4 X0))) (\lambda X5 : \iota. toset \\ & (\lambda X6 : \iota. m2_finseq_2 X6 k2_numbers (k14_seq_4 X0))) (\lambda X5 : \\ & \iota. \lambda X6 : \iota. (X5 \in X1) \wedge (X6 \in X2)) (\lambda X5 : \iota. \lambda X6 : \iota. k22_seq_4 \\ & (k19_seq_4 X0 X5 X6))) \Rightarrow (X3 = k5_seq_4 X4)))))) \end{aligned} \quad (8)$$

Assume the following.

$$\forall X0. (v1_xboole_0 X0) \Rightarrow (\forall X1. (m1_subset_1 X1 (k1_zfmisc_1 X0)) \Rightarrow (v1_xboole_0 X1)) \quad (9)$$

Theorem 1

$$\begin{aligned} & \forall X0. (m2_subset_1 X0 k1_numbers k5_numbers) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (k1_zfmisc_1 (k14_seq_4 X0))) \Rightarrow (\forall X2. (m1_subset_1 \\ & X2 (k1_zfmisc_1 (k14_seq_4 X0))) \Rightarrow (k26_seq_4 X0 X1 X2 = k26_seq_4 \\ & X0 X2 X1))) \end{aligned}$$