

t48_finseq_6
(TMPm5Q456kf3idvEYxgiEakaVLPjBmNtauu)

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Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_finseq_1 : \iota \Rightarrow \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np_1 : \iota$ be given. Let $k7_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_finseq_4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k17_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ 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 $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_numbers : \iota$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_ordinal1 : \iota$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ 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 $v5_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (m2_finseq_1 X1 X0) \Rightarrow (\forall X2. (v7_ordinal1 \\ & X2) \Rightarrow (\forall X3. (v7_ordinal1 X3) \Rightarrow (((X2 \in k4_finseq_1 X1) \wedge (X3 \in \\ & k2_finseq_1 X2)) \Rightarrow ((X3 \in k4_finseq_1 X1) \wedge (k7_partfun1 X0 (k17_finseq_1 \\ & X0 X2 X1) X3 = k7_partfun1 X0 X1 X3)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. (v7_ordinal1 X0) \Rightarrow (\forall X1. ((v1_relat_1 X1) \wedge ((\\ & v1_funct_1 X1) \wedge (v1_finseq_1 X1))) \Rightarrow (((X0 \in k4_finseq_1 X1) \wedge (\forall X2. \\ & (v7_ordinal1 X2) \Rightarrow (\neg(r1_xxreal_0 np_1 X2) \wedge (\neg(r1_xxreal_0 X0 \\ & X2) \wedge (k1_funct_1 X1 X2 = k1_funct_1 X1 X0)))))) \Rightarrow (k4_finseq_4 X1 (\\ & k1_funct_1 X1 X0) = X0))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finseq_1 X0))) \Rightarrow \\ & (\forall X1. (v7_ordinal1 X1) \Rightarrow ((X1 \in k1_relset_1 k5_numbers X0) \Leftrightarrow \\ & ((r1_xxreal_0 np_1 X1) \wedge (r1_xxreal_0 X1 (k3_finseq_1 X0)))))) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0.(v7_ordinal1\ X0) \Rightarrow (\forall X1.(v7_ordinal1\ X1) \Rightarrow ((X0 \in k2_finseq_1\ X1) \Leftrightarrow ((r1_xxreal_0\ np_1\ X0) \wedge (r1_xxreal_0\ X0\ X1)))) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.(m2_finseq_1\ X1\ X0) \Leftrightarrow (m1_finseq_1\ X1\ X0) \quad (5)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (6)$$

Assume the following.

$$\forall X0.((v1_relat_1\ X0) \wedge ((v1_funct_1\ X0) \wedge (v1_finseq_1\ X0))) \Rightarrow (k4_finseq_1\ X0 = k9_xtuple_0\ X0) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.((v1_relat_1\ X1) \wedge (v4_relat_1\ X1\ X0)) \Rightarrow (k1_relset_1\ X0\ X1 = k9_xtuple_0\ X1) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.(m2_finseq_1\ X1\ X0) \Rightarrow ((v1_funct_1\ X1) \wedge ((v1_finseq_1\ X1) \wedge (m1_subset_1\ X1\ (k1_zfmisc_1\ (k2_zfmisc_1\ k5_numbers\ X0)))))) \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.(m1_finseq_1\ X1\ X0) \Rightarrow ((v1_relat_1\ X1) \wedge ((v1_funct_1\ X1) \wedge (v1_finseq_1\ X1))) \quad (10)$$

Assume the following.

$$\forall X0.\forall X1.((v1_relat_1\ X1) \wedge ((v5_relat_1\ X1\ X0) \wedge (v1_funct_1\ X1))) \Rightarrow (\forall X2.(X2 \in k9_xtuple_0\ X1) \Rightarrow (k7_partfun1\ X0\ X1\ X2 = k1_funct_1\ X1\ X2)) \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xxreal_0\ X0) \wedge (v1_xxreal_0\ X1)) \Rightarrow ((r1_xxreal_0\ X0\ X1) \vee (r1_xxreal_0\ X1\ X0)) \quad (12)$$

Assume the following.

$$\forall X0.(v7_ordinal1\ X0) \Rightarrow (v1_xxreal_0\ X0) \quad (13)$$

Assume the following.

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

Theorem 1

$$\begin{aligned} \forall X0.(v7_ordinal1\ X0) \Rightarrow (\forall X1.(\neg v1_xboole_0\ X1) \Rightarrow (\\ \forall X2.(m2_finseq_1\ X2\ X1) \Rightarrow (((X0 \in k4_finseq_1\ X2) \wedge (\forall X3. \\ (v7_ordinal1\ X3) \Rightarrow (\neg(r1_xxreal_0\ np_1\ X3) \wedge (\neg r1_xxreal_0\ X0 \\ X3) \wedge (k7_partfun1\ X1\ X2\ X3 = k7_partfun1\ X1\ X2\ X0)))))) \Rightarrow (k4_finseq_4 \\ X2\ (k7_partfun1\ X1\ X2\ X0) = X0)))) \end{aligned}$$