

t3_finseq_8
(TMMpW4ewGDsmMPssQStqgcYXcd1BXYYS8LB)

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Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $k3_finseq_6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_finseq_1 : \iota \Rightarrow \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k2_rfinseq : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_finseq_5 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k17_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $np_1 : \iota$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ 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 $k4_ordinal1 : \iota$ be given. Let $k3_finseq_5 : \iota \Rightarrow \iota$ be given. Let $k2_finseq_6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_rfinseq : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_nat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k16_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_finseq_1 : \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $k7_nat_d : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(\neg v1_xboole_0 X1) \Rightarrow (k2_rfinseq X1 X0 (k6_finseq_1 X1) = k6_finseq_1 X1)) \quad (1)$$

Assume the following.

$$\forall X0.(\neg v1_xboole_0 X0) \Rightarrow (k4_finseq_5 X0 (k6_finseq_1 X0) = k6_finseq_1 X0) \quad (2)$$

Assume the following.

$$\forall X0.(\neg v1_xboole_0 X0) \Rightarrow (\forall X1.(v7_ordinal1 X1) \Rightarrow (k17_finseq_1 X0 X1 (k6_finseq_1 X0) = k6_finseq_1 X0)) \quad (3)$$

Assume the following.

$$((v2_xxreal_0 np_1) \wedge (m2_subset_1 np_1 k1_numbers k5_numbers)) \wedge ((m1_subset_1 np_1 k5_numbers) \wedge (m1_subset_1 np_1 k1_numbers)) \quad (4)$$

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.

$$\forall X0.\forall X1.(m1_finseq_1 X1 X0) \Rightarrow (k4_finseq_5 X0 X1 = k3_finseq_5 X1) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.((\neg v1_xboole_0 X0) \wedge ((m1_finseq_1 X1 X0) \wedge ((v7_ordinal1 X2) \wedge (v7_ordinal1 X3)))) \Rightarrow (k3_finseq_6 X0 X1 X2 X3 = k2_finseq_6 X1 X2 X3) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((v7_ordinal1 X1) \wedge (m1_finseq_1 X2 X0)) \Rightarrow (k2_rfinseq X0 X1 X2 = k1_rfinseq X1 X2) \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 X0 k5_numbers) \wedge (v7_ordinal1 X1)) \Rightarrow (k2_nat_1 X0 X1 = k2_xcmplx_0 X0 X1) \quad (10)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((v7_ordinal1 X1) \wedge (m1_finseq_1 X2 X0)) \Rightarrow (k17_finseq_1 X0 X1 X2 = k16_finseq_1 X1 X2) \quad (11)$$

Assume the following.

$$(\neg v1_xboole_0 k4_ordinal1) \wedge (v3_ordinal1 k4_ordinal1) \quad (12)$$

Assume the following.

$$\forall X0.\forall X1.((v7_ordinal1 X0) \wedge (v7_ordinal1 X1)) \Rightarrow (v7_ordinal1 (k2_xcmplx_0 X0 X1)) \quad (13)$$

Assume the following.

$$\forall X0.\forall X1.(m2_finseq_1 X1 X0) \Rightarrow ((v1_funct_1 X1) \wedge ((v1_finseq_1 X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers X0)))))) \quad (14)$$

Assume the following.

$$\forall X0.\forall X1.(m1_finseq_1 X1 X0) \Rightarrow ((v1_relat_1 X1) \wedge ((v1_funct_1 X1) \wedge (v1_finseq_1 X1))) \quad (15)$$

Assume the following.

$$\forall X0.\forall X1.((v7_ordinal1\ X0)\wedge(v7_ordinal1\ X1))\Rightarrow(m1_subset_1\ (k7_nat_d\ X0\ X1)\ k5_numbers) \quad (16)$$

Assume the following.

$$\forall X0.m2_finseq_1\ (k6_finseq_1\ X0)\ X0 \quad (17)$$

Assume the following.

$$\forall X0.k6_finseq_1\ X0 = k1_xboole_0 \quad (18)$$

Assume the following.

$$\begin{aligned} &\forall X0.((v1_relat_1\ X0)\wedge((v1_funct_1\ X0)\wedge(v1_finseq_1\ X0)))\Rightarrow \\ &\quad (\forall X1.(v7_ordinal1\ X1)\Rightarrow(\forall X2.(v7_ordinal1\ X2)\Rightarrow(\\ &\quad ((r1_xxreal_0\ X1\ X2)\Rightarrow(k2_finseq_6\ X0\ X1\ X2 = k16_finseq_1\ (k2_nat_1 \\ &\quad (k7_nat_d\ X2\ X1)\ np_1)\ (k1_rfinseq\ (k7_nat_d\ X1\ np_1)\ X0)))\wedge(\\ &\quad (\neg r1_xxreal_0\ X1\ X2)\Rightarrow(k2_finseq_6\ X0\ X1\ X2 = k3_finseq_5\ (k16_finseq_1 \\ &\quad (k2_nat_1\ (k7_nat_d\ X1\ X2)\ np_1)\ (k1_rfinseq\ (k7_nat_d\ X2\ np_1) \\ &\quad X0)))))) \end{aligned} \quad (19)$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1\ X0\ k5_numbers)\wedge(v7_ordinal1\ X1))\Rightarrow(k2_nat_1\ X0\ X1 = k2_nat_1\ X1\ X0) \quad (20)$$

Assume the following.

$$\forall X0.(m1_subset_1\ X0\ k4_ordinal1)\Rightarrow(v7_ordinal1\ X0) \quad (21)$$

Theorem 1

$$\begin{aligned} &\forall X0.(\neg v1_xboole_0\ X0)\Rightarrow(\forall X1.(m1_subset_1\ X1\ k5_numbers)\Rightarrow \\ &\quad (\forall X2.(m1_subset_1\ X2\ k5_numbers)\Rightarrow(k3_finseq_6\ X0\ (k6_finseq_1 \\ &\quad X0)\ X1\ X2 = k6_finseq_1\ X0))) \end{aligned}$$