

t82_finseq_6
(TMZEdS8FKeJK5tZnHycx69EvHaqHuzPaSL3)

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Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $r1_xreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_finseq_4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_finseq_5 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_rfinseq : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k8_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_numbers : \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $k1_rfinseq : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_nat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k12_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_finseq_1 : \iota \Rightarrow \iota$ 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. Assume the following.

$$\begin{aligned} & \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(v7_ordinal1 X1) \Rightarrow (\forall X2. \\ & (\neg v1_xboole_0 X2) \Rightarrow (\forall X3.(m2_finseq_1 X3 X2) \Rightarrow (k2_rfinseq \\ & X2 (k2_xcmplx_0 X0 X1) X3 = k2_rfinseq X2 X1 (k2_rfinseq X2 X0 X3)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.(m2_finseq_1 X1 X0) \Leftrightarrow (m1_finseq_1 X1 X0) \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((m1_finseq_1 X1 X0) \wedge (m1_finseq_1 X2 X0)) \Rightarrow (k8_finseq_1 X0 X1 X2 = k7_finseq_1 X1 X2) \quad (3)$$

Assume the following.

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

Assume the following.

$$\forall X0.\forall X1.\forall X2.((v7_ordinal1 X1) \wedge (m1_finseq_1 X2 X0)) \Rightarrow (k2_rfinseq X0 X1 X2 = k1_rfinseq X1 X2) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.((v7_ordinal1 X0)\wedge(m1_subset_1 X1 k5_numbers))\Rightarrow (k1_nat_1 X0 X1 = k2_xcmplx_0 X0 X1) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1_xboole_0 X0)\wedge(m1_subset_1 X1 X0))\Rightarrow (k12_finseq_1 X0 X1 = k5_finseq_1 X1) \quad (7)$$

Assume the following.

$$\begin{aligned} \forall X0.(v7_ordinal1 X0)\Rightarrow(\forall X1.(\neg v1_xboole_0 X1)\Rightarrow(\\ \forall X2.(m1_subset_1 X2 X1)\Rightarrow(\forall X3.(m2_finseq_1 X3 X1)\Rightarrow \\ ((X2 \in k10_xtuple_0 X3)\Rightarrow((r1_xreal_0 (k4_finseq_4 X3 X2) X0)\vee \\ (k1_nat_1 X0 (k4_finseq_4 (k2_rfinseq X1 X0 X3) X2) = k4_finseq_4 \\ X3 X2)))))) \end{aligned} \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.((v7_ordinal1 X0)\wedge(v7_ordinal1 X1))\Rightarrow(v7_ordinal1 (k2_xcmplx_0 X0 X1)) \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.(m2_finseq_1 X1 X0)\Rightarrow((v1_funct_1 X1)\wedge((v1_finseq_1 X1)\wedge(m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers X0)))))) \quad (10)$$

Assume the following.

$$\forall X0.\forall X1.(m1_finseq_1 X1 X0)\Rightarrow((v1_relat_1 X1)\wedge((v1_funct_1 X1)\wedge(v1_finseq_1 X1))) \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.((v1_relat_1 X0)\wedge((v1_funct_1 X0)\wedge(v1_finseq_1 X0)))\Rightarrow(m1_subset_1 (k4_finseq_4 X0 X1) k5_numbers) \quad (12)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((v7_ordinal1 X1)\wedge(m1_finseq_1 X2 X0))\Rightarrow(m2_finseq_1 (k2_rfinseq X0 X1 X2) X0) \quad (13)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.((v7_ordinal1 X0)\wedge((v1_relat_1 X1)\wedge(\\ v1_funct_1 X1)\wedge(v1_finseq_1 X1)))\Rightarrow((v1_relat_1 (k1_rfinseq \\ X0 X1))\wedge((v1_funct_1 (k1_rfinseq X0 X1))\wedge(v1_finseq_1 (k1_rfinseq \\ X0 X1)))) \end{aligned} \quad (14)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1_xboole_0 X0)\wedge(m1_subset_1 X1 X0))\Rightarrow (m2_finseq_1 (k12_finseq_1 X0 X1) X0) \quad (15)$$

Assume the following.

$$\forall X0.(\neg v1_xboole_0 X0)\Rightarrow(\forall X1.(m2_finseq_1 X1 X0)\Rightarrow(\forall X2.(m1_subset_1 X2 X0)\Rightarrow(k2_finseq_5 X0 X1 X2 = k8_finseq_1 X0 (k12_finseq_1 X0 X2) (k2_rfinseq X0 (k4_finseq_4 X1 X2) X1)))) \quad (16)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k4_ordinal1)\Rightarrow(v7_ordinal1 X0) \quad (17)$$

Theorem 1

$$\forall X0.(v7_ordinal1 X0)\Rightarrow(\forall X1.(\neg v1_xboole_0 X1)\Rightarrow(\forall X2.(m1_subset_1 X2 X1)\Rightarrow(\forall X3.(m2_finseq_1 X3 X1)\Rightarrow((X2 \in k10_xtuple_0 X3)\Rightarrow((r1_xxreal_0 (k4_finseq_4 X3 X2) X0)\vee(k2_finseq_5 X1 (k2_rfinseq X1 X0 X3) X2 = k2_finseq_5 X1 X3 X2))))))$$