

t67_finseq_5
(TMG8Coiu9Cp8BrbHXGcf5QNj8jdDrqu8UFh)

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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 $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_finseq_5 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k8_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k12_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ 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 $k7_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_rfinseq : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k17_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k16_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_numbers : \iota$ be given. Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (X0 = k1_xboole_0) \quad (1)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finseq_1 X0))) \Rightarrow ((k7_finseq_1 X0 k1_xboole_0 = X0) \wedge (k7_finseq_1 k1_xboole_0 X0 = X0)) \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.(m2_finseq_1 X1 X0) \Rightarrow (k2_rfinseq X0 k6_numbers X1 = X1) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.(m2_finseq_1 X1 X0) \Leftrightarrow (m1_finseq_1 X1 X0) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((m1_finseq_1 X1 X0) \wedge (m1_finseq_1 X2 X0)) \Rightarrow (k8_finseq_1 X0 X1 X2 = k7_finseq_1 X1 X2) \quad (5)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((v7_ordinal1\ X1)\wedge(m1_finseq_1\ X2\ X0))\Rightarrow(k17_finseq_1\ X0\ X1\ X2 = k16_finseq_1\ X1\ X2) \quad (7)$$

Assume the following.

$$\begin{aligned} &\forall X0.((v1_relat_1\ X0)\wedge((v1_funct_1\ X0)\wedge(v1_finseq_1\ X0)))\Rightarrow \\ &(((v1_relat_1\ (k16_finseq_1\ k6_numbers\ X0))\wedge((v1_funct_1\ (k16_finseq_1\ k6_numbers\ X0))\wedge \\ &\quad (v1_xboole_0\ (k16_finseq_1\ k6_numbers\ X0))\wedge \\ &\quad (v1_finseq_1\ (k16_finseq_1\ k6_numbers\ X0)))))) \end{aligned} \quad (8)$$

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.

$$\forall X0.\forall X1.\forall X2.((v7_ordinal1\ X1)\wedge(m1_finseq_1\ X2\ X0))\Rightarrow(m2_finseq_1\ (k17_finseq_1\ X0\ X1\ X2)\ X0) \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1_xboole_0\ X0)\wedge(m1_subset_1\ X1\ X0))\Rightarrow(m2_finseq_1\ (k12_finseq_1\ X0\ X1)\ X0) \quad (12)$$

Assume the following.

$$\begin{aligned} &\forall X0.(\neg v1_xboole_0\ X0)\Rightarrow(\forall X1.(m2_finseq_1\ X1\ X0)\Rightarrow \\ &\quad (\forall X2.(m1_subset_1\ X2\ X0)\Rightarrow(\forall X3.(v7_ordinal1\ X3)\Rightarrow \\ &\quad (k5_finseq_5\ X0\ X1\ X2\ X3 = k8_finseq_1\ X0\ (k8_finseq_1\ X0\ (k17_finseq_1\ X0\ X3\ X1)\ (k12_finseq_1\ X0\ X2))\ (k2_rfinseq\ X0\ X3\ X1)))))) \end{aligned} \quad (13)$$

Assume the following.

$$\forall X0.(v1_xboole_0\ X0)\Rightarrow(v7_ordinal1\ X0) \quad (14)$$

Theorem 1

$$\begin{aligned} &\forall X0.(\neg v1_xboole_0\ X0)\Rightarrow(\forall X1.(m1_subset_1\ X1\ X0)\Rightarrow \\ &(\forall X2.(m2_finseq_1\ X2\ X0)\Rightarrow(k5_finseq_5\ X0\ X2\ X1\ k6_numbers = \\ &\quad k8_finseq_1\ X0\ (k12_finseq_1\ X0\ X1)\ X2))) \end{aligned}$$