

150_finseq_3

(TMEpcB8kUZ45x6AzCkiGSDzUgM7H9MgAcW3)

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Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $r2_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $k2_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k14_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k2_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k2_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k4_ordinal1 : \iota$ 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 $k6_numbers : \iota$ be given. Let $k1_nat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Assume the following.

$$m1_subset_1 \ k1_xboole_0 \ k4_ordinal1 \tag{1}$$

Assume the following.

$$\begin{aligned} & ((v2_xxreal_0 \ np_1) \wedge (m2_subset_1 \ np_1 \ k1_numbers \ k5_numbers)) \wedge \\ & ((m1_subset_1 \ np_1 \ k5_numbers) \wedge (m1_subset_1 \ np_1 \ k1_numbers)) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0 : \iota \Rightarrow o. ((X0 \ k6_numbers) \wedge (\forall X1. (v7_ordinal1 \\ & X1) \Rightarrow ((X0 \ X1) \Rightarrow (X0 \ (k1_nat_1 \ X1 \ np_1)))))) \Rightarrow (\forall X1. (v7_ordinal1 \\ & X1) \Rightarrow (X0 \ X1)) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v1_xboole_0 \ X0) \wedge ((\neg v1_xboole_0 \ X1) \wedge \\ & (m1_subset_1 \ X1 \ (k1_zfmisc_1 \ X0)))) \Rightarrow (\forall X2. (m2_subset_1 \\ & X2 \ X0 \ X1) \Leftrightarrow (m1_subset_1 \ X2 \ X1)) \end{aligned} \tag{4}$$

Assume the following.

$$k6_numbers = k1_xboole_0 \tag{5}$$

Assume the following.

$$k5_numbers = k4_ordinal1 \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.((v7_ordinal1\ X0)\wedge(m1_subset_1\ X1\ k5_numbers))\Rightarrow (k1_nat_1\ X0\ X1 = k2_xcmplx_0\ X0\ X1) \quad (7)$$

Assume the following.

$$\forall X0.(v7_ordinal1\ X0)\Rightarrow((\forall X1.(v7_ordinal1\ X1)\Rightarrow(r2_relset_1\ k5_numbers\ k5_numbers\ (k2_partfun1\ k5_numbers\ k5_numbers\ (k14_finseq_1\ (k2_finseq_1\ (k2_xcmplx_0\ X1\ X0)))\ (k2_finseq_1\ X1))\ (k14_finseq_1\ (k2_finseq_1\ X1))))\Rightarrow(\forall X1.(v7_ordinal1\ X1)\Rightarrow(r2_relset_1\ k5_numbers\ k5_numbers\ (k2_partfun1\ k5_numbers\ k5_numbers\ (k14_finseq_1\ (k2_finseq_1\ (k1_nat_1\ X1\ (k1_nat_1\ X0\ np_1))))\ (k2_finseq_1\ X1))\ (k14_finseq_1\ (k2_finseq_1\ X1)))))) \quad (8)$$

Assume the following.

$$\forall X0.(v7_ordinal1\ X0)\Rightarrow(r2_relset_1\ k5_numbers\ k5_numbers\ (k2_partfun1\ k5_numbers\ k5_numbers\ (k14_finseq_1\ (k2_finseq_1\ (k1_nat_1\ X0\ k6_numbers)))\ (k2_finseq_1\ X0))\ (k14_finseq_1\ (k2_finseq_1\ X0))) \quad (9)$$

Assume the following.

$$(\neg v1_xboole_0\ k4_ordinal1)\wedge(v3_ordinal1\ k4_ordinal1) \quad (10)$$

Assume the following.

$$m1_subset_1\ k5_numbers\ (k1_zfmisc_1\ k1_numbers) \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.((v7_ordinal1\ X0)\wedge(m1_subset_1\ X1\ k5_numbers))\Rightarrow (m2_subset_1\ (k1_nat_1\ X0\ X1)\ k1_numbers\ k5_numbers) \quad (12)$$

Assume the following.

$$\forall X0.(v1_xboole_0\ X0)\Rightarrow(\forall X1.(m1_subset_1\ X1\ (k1_zfmisc_1\ X0))\Rightarrow(v1_xboole_0\ X1)) \quad (13)$$

Theorem 1

$$\forall X0.(v7_ordinal1\ X0)\Rightarrow(\forall X1.(v7_ordinal1\ X1)\Rightarrow(r2_relset_1\ k5_numbers\ k5_numbers\ (k2_partfun1\ k5_numbers\ k5_numbers\ (k14_finseq_1\ (k2_finseq_1\ (k2_xcmplx_0\ X1\ X0)))\ (k2_finseq_1\ X1))\ (k14_finseq_1\ (k2_finseq_1\ X1))))$$