

t140_seq_4

(TMQ2xQrXV7AFufCVnPi7AndXigMri3US1PX)

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Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k1_rvsum_1 : \iota \Rightarrow \iota$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k5_card_1 : \iota \Rightarrow \iota$ be given. Let $v5_valued_0 : \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v3_valued_0 : \iota \Rightarrow o$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_finseq_1 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 X1) \wedge \\ & (m1_subset_1 X1 (k1_zfmisc_1 X0)))) \Rightarrow (\forall X2. (m2_subset_1 \\ & X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1)) \end{aligned} \quad (1)$$

Assume the following.

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

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (3)$$

Assume the following.

$$\forall X0. ((v1_relat_1 X0) \wedge (v3_valued_0 X0)) \Rightarrow (k1_rvsum_1 X0 = k10_xtuple_0 X0) \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0. (m2_subset_1 X0 k1_numbers k5_numbers) \Rightarrow (\forall X1. \\ & (m2_finseq_1 X1 k1_numbers) \Rightarrow (\neg (k5_card_1 (k1_rvsum_1 X1) = X0) \wedge \\ & (\forall X2. (m2_finseq_1 X2 k1_numbers) \Rightarrow (\neg (k1_rvsum_1 X2 = k1_rvsum_1 \\ & X1) \wedge ((k3_finseq_1 X2 = k5_card_1 (k1_rvsum_1 X1)) \wedge (v5_valued_0 \\ & X2)))))) \end{aligned} \quad (5)$$

Assume the following.

$$(\neg v1_xboole_0\ k4_ordinal1) \wedge (v3_ordinal1\ k4_ordinal1) \quad (6)$$

Assume the following.

$$\forall X0. ((v1_relat_1\ X0) \wedge (v1_finset_1\ X0)) \Rightarrow (v1_finset_1\ (k10_xtuple_0\ X0)) \quad (7)$$

Assume the following.

$$\forall X0. \forall X1. (m1_finseq_1\ X1\ X0) \Rightarrow ((v1_relat_1\ X1) \wedge (v1_funct_1\ X1) \wedge (v1_finseq_1\ X1)) \quad (8)$$

Assume the following.

$$m1_subset_1\ k5_numbers\ (k1_zfmisc_1\ k1_numbers) \quad (9)$$

Assume the following.

$$\forall X0. (v1_finset_1\ X0) \Rightarrow (m1_subset_1\ (k5_card_1\ X0)\ k4_ordinal1) \quad (10)$$

Assume the following.

$$\forall X0. (m1_finseq_1\ X0\ k1_numbers) \Rightarrow (v3_valued_0\ X0) \quad (11)$$

Assume the following.

$$\forall X0. ((v1_relat_1\ X0) \wedge ((v1_funct_1\ X0) \wedge (v1_finseq_1\ X0))) \Rightarrow ((v1_relat_1\ X0) \wedge ((v1_funct_1\ X0) \wedge (v1_finset_1\ X0))) \quad (12)$$

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

$$\forall X0. (m2_finseq_1\ X0\ k1_numbers) \Rightarrow (\exists X1. (m2_finseq_1\ X1\ k1_numbers) \wedge ((k1_rsum_1\ X1 = k1_rsum_1\ X0) \wedge ((k3_finseq_1\ X1 = k5_card_1\ (k1_rsum_1\ X0)) \wedge (v5_valued_0\ X1))))$$