

t130_finseq_3 (TMXfgQ-
MuT5pRXH5g7F1JqqNjTdLMGNDRLy9)

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Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k4_card_3 : \iota \Rightarrow \iota$ be given. Let $k11_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_finseq_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_3 : \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k2_finseq_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_2 : \iota$ be given. Let $k10_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k9_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k7_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_funcop_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k5_numbers : \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_ordinal1 : \iota$ be given. Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.k4_finseq_2 X0 X1 = k1_funct_2 (k2_finseq_1 X0) X1) \quad (1)$$

Assume the following.

$$\forall X0.k2_finseq_2 np_3 X0 = k11_finseq_1 X0 X0 X0 \quad (2)$$

Assume the following.

$$\forall X0.k2_finseq_2 np_2 X0 = k10_finseq_1 X0 X0 \quad (3)$$

Assume the following.

$$\forall X0.k2_finseq_2 np_1 X0 = k9_finseq_1 X0 \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(k11_finseq_1 X0 X1 X2 = k7_finseq_1 (k9_finseq_1 X0) (k10_finseq_1 X1 X2)) \wedge (k11_finseq_1 X0 X1 X2 = k7_finseq_1 (k10_finseq_1 X0 X1) (k9_finseq_1 X2)) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.k1_funct_2 X0 X1 = k4_card_3 (k7_funcop_1 X0 X1) \quad (6)$$

Assume the following.

$$\begin{aligned} & ((v2_xreal_0 \text{ np_3}) \wedge (m2_subset_1 \text{ np_3 } k1_numbers \text{ k5_numbers})) \wedge \\ & ((m1_subset_1 \text{ np_3 } k5_numbers) \wedge (m1_subset_1 \text{ np_3 } k1_numbers)) \end{aligned} \quad (7)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (8)$$

Assume the following.

$$\forall X0. \forall X1. k10_finseq_1 \text{ X0 X1} = k7_finseq_1 (k9_finseq_1 \text{ X0}) (k9_finseq_1 \text{ X1}) \quad (9)$$

Assume the following.

$$\forall X0. (v7_ordinal1 \text{ X0}) \Rightarrow (\forall X1. k2_finseq_2 \text{ X0 X1} = k7_funcop_1 (k2_finseq_1 \text{ X0}) \text{ X1}) \quad (10)$$

Assume the following.

$$\forall X0. (m1_subset_1 \text{ X0 } k4_ordinal1) \Rightarrow (v7_ordinal1 \text{ X0}) \quad (11)$$

Theorem 1

$$\forall X0. (\neg v1_xboole_0 \text{ X0}) \Rightarrow (k4_card_3 (k11_finseq_1 \text{ X0 X0 X0}) = k4_finseq_2 \text{ np_3 } \text{X0})$$