

t13_filerec1 (TMN-
JSqt9ZbNkkkYkqEKAN937GBnh71G6xyG)

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Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k11_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k17_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k9_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k5_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_finseq_1 : \iota \Rightarrow \iota$ 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 $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k16_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ 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. Assume the following.

$$\forall X0. \forall X1. \forall X2. k5_relat_1 (k11_finseq_1 X0 X1 X2) (k2_finseq_1 np_1) = k9_finseq_1 X0 \quad (1)$$

Assume the following.

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

Assume the following.

$$\forall X0. \forall X1. (m2_finseq_1 X1 X0) \Leftrightarrow (m1_finseq_1 X1 X0) \quad (3)$$

Assume the following.

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

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((v7_ordinal1 X1) \wedge (m1_finseq_1 X2 X0)) \Rightarrow (k17_finseq_1 X0 X1 X2 = k16_finseq_1 X1 X2) \quad (5)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (v1_relat_1 (k11_finseq_1 X0 X1 X2)) \wedge (v1_funct_1 (k11_finseq_1 X0 X1 X2)) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.v1_finseq_1 (k11_finseq_1 X0 X1 X2) \quad (7)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.((v1_relat_1 X1) \wedge ((v1_funct_1 X1) \wedge (v1_finseq_1 X1))) \Rightarrow (k16_finseq_1 X0 X1 = k5_relat_1 X1 (k2_finseq_1 X0))) \quad (8)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k4_ordinal1) \Rightarrow (v7_ordinal1 X0) \quad (9)$$

Theorem 1

$$\forall X0.\forall X1.\forall X2.\forall X3.(\neg v1_xboole_0 X3) \Rightarrow (\forall X4.(m2_finseq_1 X4 X3) \Rightarrow ((X4 = k11_finseq_1 X0 X1 X2) \Rightarrow (k17_finseq_1 X3 np_1 X4 = k9_finseq_1 X0)))$$