

t8_finseq_3
(TMMHMbE7aJZuT95ui2kihGi2i39ptc9fNhn)

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Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k1_nat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k2_finseq_1 : \iota \Rightarrow \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k7_nat_d : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_nat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_2 : \iota$ be given. Let $k4_card_1 : \iota \Rightarrow \iota$ be given. Let $k1_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k1_ordinal1 : \iota \Rightarrow \iota$ 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 $v1_xxreal_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(v7_ordinal1 X1) \Rightarrow ((\\ (r1_xxreal_0 X0 X1) \vee (r1_xxreal_0 X0 (k7_nat_d X1 np_1))) \Rightarrow ((\neg \\ r1_xxreal_0 (k1_nat_1 X1 np_1) X0) \wedge ((r1_xxreal_0 X0 (k1_nat_1 \\ X1 np_1)) \wedge ((\neg r1_xxreal_0 (k2_nat_1 (k1_nat_1 X1 np_1) np_1) \\ X0) \wedge ((r1_xxreal_0 X0 (k2_nat_1 (k1_nat_1 X1 np_1) np_1)) \wedge ((\\ \neg r1_xxreal_0 (k1_nat_1 X1 np_2) X0) \wedge (r1_xxreal_0 X0 (k1_nat_1 \\ X1 np_2)))))))))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (k4_card_1 X0 = k1_nat_1 X0 np_1) \quad (2)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (k2_finseq_1 X0 = k1_finseq_1 X0) \quad (3)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (k1_ordinal1 X0 = k1_nat_1 X0 np_1) \quad (4)$$

Assume the following.

$$\begin{aligned} \forall X0.(v7_ordinal1 X0) \Rightarrow (k1_finseq_1 X0 = \text{ReplSep} (\text{toset} (\\ \lambda X1 : \iota.m2_subset_1 X1 k1_numbers k5_numbers)) (\lambda X1 : \iota. \\ (r1_xxreal_0 np_1 X1) \wedge (r1_xxreal_0 X1 X0)) (\lambda X1 : \iota.X1)) \end{aligned} \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xxreal_0 X0) \wedge (v1_xxreal_0 X1)) \Rightarrow (\\ (r1_xxreal_0 X0 X1) \vee (r1_xxreal_0 X1 X0)) \quad (6)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (v1_xxreal_0 X0) \quad (7)$$

Theorem 1 $\forall X0.(v7_ordinal1 X0) \Rightarrow (\neg k1_nat_1 X0 \rightarrow np_1 \in k2_finseq_1 X0)$.