

t131_finseq_2
(TMctzpcLs47BCRvNLeQ7e6XaUGWr6zHmLpf)

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Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v3_card_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_finseq_2 : \iota \Rightarrow \iota \Rightarrow \iota$ 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. Let $m1_finseq_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.\forall X2.(X1 \in k4_finseq_2 X0 X2) \Rightarrow ((v1_relat_1 X1) \wedge ((v1_funct_1 X1) \wedge ((v3_card_1 X1 X0) \wedge (v1_finseq_1 X1)))))) \quad (1)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(\neg v1_xboole_0 X1) \Rightarrow (\forall X2.((v3_card_1 X2 X0) \wedge (m2_finseq_1 X2 X1)) \Rightarrow (X2 \in k4_finseq_2 X0 X1))) \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.(v7_ordinal1 X0) \Rightarrow (m1_finseq_2 (k4_finseq_2 X0 X1) X1) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.(m1_finseq_2 X1 X0) \Leftrightarrow (\forall X2.(X2 \in X1) \Rightarrow (m2_finseq_1 X2 X0)) \quad (4)$$

Theorem 1

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(\neg v1_xboole_0 X1) \Rightarrow (\forall X2.((v3_card_1 X2 X0) \wedge (m2_finseq_1 X2 X1)) \Leftrightarrow (X2 \in k4_finseq_2 X0 X1)))$$