

t7_finseq_5

(TMcYT9Fz6CqhtQf7ymzauZnTHdYAm61Nzt2)

October 27, 2020

Let $v1_xboole_0 : \iota \Rightarrow o$ 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 $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k1_nat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k1_card_1 : \iota \Rightarrow \iota$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $v1_card_1 : \iota \Rightarrow o$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v7_ordinal1\ X0) \Rightarrow (\neg(X0 \neq k6_numbers) \wedge (\forall X1.(v7_ordinal1\ X1) \Rightarrow (X0 \neq k1_nat_1\ X1\ np_1))) \quad (1)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (2)$$

Assume the following.

$$\forall X0.((v1_relat_1\ X0) \wedge ((v1_funct_1\ X0) \wedge (v1_finseq_1\ X0))) \Rightarrow (k3_finseq_1\ X0 = k1_card_1\ X0) \quad (3)$$

Assume the following.

$$\forall X0.(v1_finset_1\ X0) \Rightarrow ((v1_finset_1\ (k1_card_1\ X0)) \wedge (v1_card_1\ (k1_card_1\ X0))) \quad (4)$$

Assume the following.

$$\forall X0.(\neg v1_xboole_0\ X0) \Rightarrow ((\neg v1_xboole_0\ (k1_card_1\ X0)) \wedge (v1_card_1\ (k1_card_1\ X0))) \quad (5)$$

Assume the following.

$$v1_xboole_0\ k1_xboole_0 \quad (6)$$

Assume the following.

$$\forall X0.((v3_ordinal1\ X0) \wedge (v1_finset_1\ X0)) \Rightarrow (v7_ordinal1\ X0) \quad (7)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finseq_1 X0))) \Rightarrow ((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finset_1 X0))) \quad (8)$$

Assume the following.

$$\forall X0.(v1_card_1 X0) \Rightarrow (v3_ordinal1 X0) \quad (9)$$

Theorem 1

$$\forall X0.((\neg v1_xboole_0 X0) \wedge ((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finseq_1 X0)))) \Rightarrow (\exists X1.(v7_ordinal1 X1) \wedge (k1_nat_1 X1 \text{ np_1} = k3_finseq_1 X0))$$