

t119\_finseq\_3  
(TMad8e7FpLjfPdPGNnUGN9UypaAazUtNR8a)

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Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $k6\_numbers : \iota$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $k4\_finseq\_2 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $np\_0 : \iota$  be given. Let  $k1\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $v3\_card\_1 : \iota \Rightarrow \iota \Rightarrow o$  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.

$$\forall X0.(v1\_xboole\_0 X0) \Rightarrow (X0 = k1\_xboole\_0) \quad (2)$$

Assume the following.

$$v1\_xboole\_0 np\_0 \quad (3)$$

Assume the following.

$$k6\_numbers = k1\_xboole\_0 \quad (4)$$

Assume the following.

$$\forall X0.(v7\_ordinal1 X0) \Rightarrow (k2\_finseq\_1 X0 = k1\_finseq\_1 X0) \quad (5)$$

Assume the following.

$$\forall X0.(v7\_ordinal1 X0) \Rightarrow (v3\_card\_1 (k1\_finseq\_1 X0) X0) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0 X0) \wedge (v1\_xboole\_0 X1)) \Rightarrow (v1\_xboole\_0 (k1\_funct\_2 X0 X1)) \quad (7)$$

Assume the following.

$$\forall X0.\neg v1\_xboole\_0 (k1\_funct\_2 X0 X0) \quad (8)$$

Assume the following.

$$\forall X0.((v7\_ordinal1\ X0)\wedge(\neg v1\_xboole\_0\ X0))\Rightarrow(\neg v1\_xboole\_0\ (k1\_finseq\_1\ X0)) \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.(\neg v1\_xboole\_0\ X1)\Rightarrow(\neg v1\_xboole\_0\ (k1\_funct\_2\ X0\ X1)) \quad (10)$$

Assume the following.

$$k1\_xboole\_0 = the\ (\lambda X0 : \iota.v1\_xboole\_0\ X0) \quad (11)$$

Assume the following.

$$\forall X0.(v1\_xboole\_0\ X0)\Rightarrow(v7\_ordinal1\ X0) \quad (12)$$

Assume the following.

$$\forall X0.(v3\_card\_1\ X0\ k1\_xboole\_0)\Rightarrow(v1\_xboole\_0\ X0) \quad (13)$$

**Theorem 1**

$$\forall X0.\forall X1.(v7\_ordinal1\ X1)\Rightarrow(((X1\neq k6\_numbers)\wedge(X0 = k1\_xboole\_0))\Leftrightarrow(k4\_finseq\_2\ X1\ X0 = k1\_xboole\_0))$$