

## l44\_idea\_1

(TMRkkYN4vQjEh2piAVuWaF1LRi25qakWjws)

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Let  $m2\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k5\_numbers : \iota$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $np\_3 : \iota$  be given. Let  $k4\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $k1\_recdef\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k13\_idea\_1 : \iota \Rightarrow \iota$  be given. Let  $np\_2 : \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m1\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k4\_ordinal1 : \iota$  be given. Let  $k15\_funcop\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k14\_funcop\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v3\_ordinal1 : \iota \Rightarrow o$  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  $k1\_numbers : \iota$  be given. Let  $v4\_valued\_0 : \iota \Rightarrow o$  be given. Let  $k3\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $v5\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v1\_xboole\_0 X0) \wedge ((\neg v1\_xboole\_0 X1) \wedge \\ & (m1\_subset\_1 X1 (k1\_zfmisc\_1 X0)))) \Rightarrow (\forall X2. (m2\_subset\_1 \\ & X2 X0 X1) \Leftrightarrow (m1\_subset\_1 X2 X1)) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (m2\_finseq\_1 X1 X0) \Leftrightarrow (m1\_finseq\_1 X1 X0) \quad (2)$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. \forall X4. ((m1\_subset\_1 \\ & X3 X0) \wedge (m1\_subset\_1 X4 X0)) \Rightarrow (k15\_funcop\_1 X0 X1 X2 X3 X4 = k14\_funcop\_1 \\ & X1 X2 X3 X4) \end{aligned} \quad (4)$$

Assume the following.

$$(\neg v1\_xboole\_0 k4\_ordinal1) \wedge (v3\_ordinal1 k4\_ordinal1) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.(m1\_finseq\_1 X1 X0)\Rightarrow((v1\_relat\_1 X1)\wedge(v1\_funct\_1 X1)\wedge(v1\_finseq\_1 X1)) \quad (6)$$

Assume the following.

$$m1\_subset\_1 k5\_numbers (k1\_zfmisc\_1 k1\_numbers) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.((v1\_relat\_1 X0)\wedge((v1\_funct\_1 X0)\wedge(v4\_valued\_0 X0)))\Rightarrow(m2\_subset\_1 (k1\_recdef\_1 X0 X1) k1\_numbers k5\_numbers) \quad (8)$$

Assume the following.

$$\forall X0.(m1\_finseq\_1 X0 k5\_numbers)\Rightarrow(m2\_finseq\_1 (k13\_idea\_1 X0) k5\_numbers) \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.((X0 = X1)\Rightarrow(k14\_funcop\_1 X0 X1 X2 X3 = X2))\wedge((X0\neq X1)\Rightarrow(k14\_funcop\_1 X0 X1 X2 X3 = X3)) \quad (10)$$

Assume the following.

$$\begin{aligned} \forall X0.(m2\_finseq\_1 X0 k5\_numbers)\Rightarrow(\forall X1.(m2\_finseq\_1 \\ X1 k5\_numbers)\Rightarrow((X1 = k13\_idea\_1 X0)\Leftrightarrow((k3\_finseq\_1 X1 = k3\_finseq\_1 \\ X0)\wedge(\forall X2.(m1\_subset\_1 X2 k5\_numbers)\Rightarrow((X2 \in k4\_finseq\_1 \\ X0)\Rightarrow(k1\_recdef\_1 X1 X2 = k15\_funcop\_1 k5\_numbers X2 np\_2 (k1\_recdef\_1 \\ X0 np\_3) (k15\_funcop\_1 k5\_numbers X2 np\_3 (k1\_recdef\_1 X0 np\_2) \\ (k1\_recdef\_1 X0 X2)))))))) \quad (11) \end{aligned}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_finseq\_1 X1 X0)\Rightarrow(v5\_relat\_1 X1 X0) \quad (12)$$

Assume the following.

$$\forall X0.((v1\_relat\_1 X0)\wedge(v5\_relat\_1 X0 k5\_numbers))\Rightarrow((v1\_relat\_1 X0)\wedge(v4\_valued\_0 X0)) \quad (13)$$

Assume the following.

$$\forall X0.(v1\_xboole\_0 X0)\Rightarrow(\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 X0))\Rightarrow(v1\_xboole\_0 X1)) \quad (14)$$

**Theorem 1**

$$\begin{aligned} \forall X0.(m2\_finseq\_1 X0 k5\_numbers)\Rightarrow(\forall X1.(m1\_subset\_1 \\ X1 k5\_numbers)\Rightarrow(((X1 = np\_3)\wedge(X1 \in k4\_finseq\_1 X0))\Rightarrow(k1\_recdef\_1 \\ (k13\_idea\_1 X0) X1 = k1\_recdef\_1 X0 np\_2))) \end{aligned}$$