

t91\_finseq\_6  
(TMGQmXsq6uZgx3L9beFVAG8XBCSZG4hrcBJ)

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Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m2\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k10\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $k1\_finseq\_6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_finseq\_5 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k8\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v2\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $np\_1 : \iota$  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  $m1\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k4\_ordinal1 : \iota$  be given. Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $k2\_rfinseq : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_finseq\_5 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0.(\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1.(m1\_subset\_1 X1 X0) \Rightarrow \\ & (\forall X2.(m2\_finseq\_1 X2 X0) \Rightarrow (\forall X3.(m2\_finseq\_1 X3 X0) \Rightarrow \\ & ((X1 \in k10\_xtuple\_0 X2) \Rightarrow (k2\_finseq\_5 X0 (k8\_finseq\_1 X0 X2 X3) X1 = \\ & k8\_finseq\_1 X0 (k2\_finseq\_5 X0 X2 X1) X3)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.(\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1.(m1\_subset\_1 X1 X0) \Rightarrow \\ & (\forall X2.(m2\_finseq\_1 X2 X0) \Rightarrow (X1 \in k10\_xtuple\_0 (k2\_finseq\_5 \\ & X0 X2 X1)))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & ((v2\_xxreal\_0 np\_1) \wedge (m2\_subset\_1 np\_1 k1\_numbers k5\_numbers)) \wedge \\ & ((m1\_subset\_1 np\_1 k5\_numbers) \wedge (m1\_subset\_1 np\_1 k1\_numbers)) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. (m2\_finseq\_1 X1 X0) \Leftrightarrow (m1\_finseq\_1 X1 X0) \quad (4)$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \quad (5)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((m1\_finseq\_1 X1 X0) \wedge (m1\_finseq\_1 X2 X0)) \Rightarrow (m2\_finseq\_1 (k8\_finseq\_1 X0 X1 X2) X0) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((v7\_ordinal1\ X1)\wedge(m1\_finseq\_1\ X2\ X0))\Rightarrow(m2\_finseq\_1\ (k2\_rfinseq\ X0\ X1\ X2)\ X0) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((\neg v1\_xboole\_0\ X0)\wedge(m1\_finseq\_1\ X1\ X0))\Rightarrow(m2\_finseq\_1\ (k1\_finseq\_5\ X0\ X1\ X2)\ X0) \quad (8)$$

Assume the following.

$$\begin{aligned} \forall X0.(\neg v1\_xboole\_0\ X0)\Rightarrow(\forall X1.(m2\_finseq\_1\ X1\ X0)\Rightarrow \\ (\forall X2.(m1\_subset\_1\ X2\ X0)\Rightarrow(((X2 \in k10\_xtuple\_0\ X1)\Rightarrow(k1\_finseq\_6 \\ X0\ X1\ X2 = k8\_finseq\_1\ X0\ (k2\_finseq\_5\ X0\ X1\ X2)\ (k2\_rfinseq\ X0\ np\_1 \\ (k1\_finseq\_5\ X0\ X1\ X2))))\wedge((\neg X2 \in k10\_xtuple\_0\ X1)\Rightarrow(k1\_finseq\_6 \\ X0\ X1\ X2 = X1)))))) \end{aligned} \quad (9)$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k4\_ordinal1)\Rightarrow(v7\_ordinal1\ X0) \quad (10)$$

**Theorem 1**

$$\begin{aligned} \forall X0.(\neg v1\_xboole\_0\ X0)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ X0)\Rightarrow \\ (\forall X2.(m2\_finseq\_1\ X2\ X0)\Rightarrow((X1 \in k10\_xtuple\_0\ X2)\Rightarrow(X1 \in k10\_xtuple\_0 \\ (k1\_finseq\_6\ X0\ X2\ X1)))))) \end{aligned}$$