t93_finseq_6 (TMWfEEoMcmyZ9SSGKr8P5QR9WW7vktdwEzx)

October 27, 2020

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 $k1\_finseq\_6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $k7\_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np\_\_1 : \iota$ be given. Let $m1\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k8\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_finseq\_5 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ 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.

$$\forall X0.(\neg v1\_xboole\_0\ X0) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ X0) \Rightarrow (\forall X2.(m2\_finseq\_1\ X2\ X0) \Rightarrow ((X1 \in k10\_xtuple\_0\ X2) \Rightarrow (k7\_partfun1\ X0\ (k1\_finseq\_6\ X0\ X2\ X1)\ np\_\_1 = X1)))) \tag{1}$$

Assume the following.

$$\forall X0.(\neg v1\_xboole\_0\ X0) \Rightarrow (\forall X1.(m2\_finseq\_1\ X1\ X0) \Rightarrow (k1\_finseq\_6\ X0\ X1\ (k7\_partfun1\ X0\ X1\ np\_\_1) = X1)) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.(m2\_finseq\_1\ X1\ X0) \Leftrightarrow (m1\_finseq\_1\ X1\ X0) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((\neg v1\_xboole\_0\ X0) \wedge ((m1\_finseq\_1\ X1\ X0) \wedge (m1\_subset\_1\ X2\ X0))) \Rightarrow (m2\_finseq\_1\ (k1\_finseq\_6\ X0\ X1\ X2)\ X0) \tag{4}$$

Assume the following.

$$\forall X0.(\neg v1\_xboole\_0\ X0) \Rightarrow (\forall X1.(m2\_finseq\_1\ X1\ X0) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ X0) \Rightarrow (((X2 \in k10\_xtuple\_0\ X1) \Rightarrow (k1\_finseq\_6\ X0\ X1\ X2 = k8\_finseq\_1\ X0\ (k2\_finseq\_5\ X0\ X1\ X2)\ (k2\_rfinseq\ X0\ np\_\_1\ (k1\_finseq\_5\ X0\ X1\ X2)))) \wedge ((\neg X2 \in k10\_xtuple\_0\ X1) \Rightarrow (k1\_finseq\_6\ X0\ X1\ X2 = X1))))) \tag{5}$$

Theorem 1

$$\forall X0.(\neg v1\_xboole\_0\ X0) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ X0) \Rightarrow (\forall X2.(m2\_finseq\_1\ X2\ X0) \Rightarrow (k1\_finseq\_6\ X0\ (k1\_finseq\_6\ X0\ X2\ X1)\ X1 = k1\_finseq\_6\ X0\ X2\ X1)))$$