t40_finseq_6 (TMFBidz4fATh9xAdqt9brZc17yqQ37vZVZh)

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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 $k1\_finseq\_5 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5\_finseq\_4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k12\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k17\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4\_finseq\_4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(\neg v1\_xboole\_0\ X0) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ X0) \Rightarrow (\forall X2.\forall X3.(m2\_finseq\_1\ X3\ X2) \Rightarrow ((X1 \in k10\_xtuple\_0\ X3) \Rightarrow (k7\_finseq\_1\ (k5\_finseq\_4\ X3\ X1)\ (k12\_finseq\_1\ X0\ X1) = k17\_finseq\_1\ X2\ (k4\_finseq\_4\ X3\ X1)\ X3)))) \tag{1}$$

Assume the following.

$$\forall X0.(\neg v1\_xboole\_0\ X0) \Rightarrow (\forall X1.(m2\_finseq\_1\ X1\ X0) \Rightarrow (\forall X2.k1\_finseq\_5\ X0\ X1\ X2 = k17\_finseq\_1\ X0\ (k4\_finseq\_4\ X1\ X2)\ X1)) \tag{2}$$

Theorem 1

$$\forall X0.(\neg v1\_xboole\_0\ X0) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ X0) \Rightarrow (\forall X2.(m2\_finseq\_1\ X2\ X0) \Rightarrow ((X1 \in k10\_xtuple\_0\ X2) \Rightarrow (k1\_finseq\_5\ X0\ X2\ X1 = k7\_finseq\_1\ (k5\_finseq\_4\ X2\ X1)\ (k12\_finseq\_1\ X0\ X1))))))$$