t22_finseq_6 (TMHorrs7sPtLZ7r2snBSm9d5J3c69hLy6Rf)

October 27, 2020

Let $k4\_finseq\_4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k11\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np\_\_2 : \iota$ 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 $k10\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $k7\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_finseq\_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np\_\_1 : \iota$ be given. Let $k9\_finseq\_1 : \iota \Rightarrow \iota$ be given. Let $k2\_finseq\_1 : \iota \Rightarrow \iota$ be given. Let $k1\_tarski : \iota \Rightarrow \iota$ be given. Let $k2\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5\_finseq\_1 : \iota \Rightarrow \iota$ be given. Let $k4\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.((v1\_relat\_1\ X0) \wedge ((v1\_funct\_1\ X0) \wedge (v1\_finseq\_1\ X0))) \Rightarrow (\forall X1.((v1\_relat\_1\ X1) \wedge ((v1\_funct\_1\ X1) \wedge (v1\_finseq\_1\ X1))) \Rightarrow (\forall X2.(X2 \in k10\_xtuple\_0\ X0) \Rightarrow (k4\_finseq\_4\ (k7\_finseq\_1\ X0\ X1)\ X2 = k4\_finseq\_4\ X0\ X2))) \tag{1}$$

Assume the following.

$$\forall X0.k2\_finseq\_2\ np\_\_1\ X0 = k9\_finseq\_1\ X0 \tag{2}$$

Assume the following.

$$(k2\_finseq\_1\ np\_\_1 = k1\_tarski\ np\_\_1) \wedge (k2\_finseq\_1\ np\_\_2 = k2\_tarski\ np\_\_1\ np\_\_2) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.(X0 \neq X1) \Rightarrow (k4\_finseq\_4\ (k10\_finseq\_1\ X0\ X1)\ X1 = np\_\_2) \tag{4}$$

Assume the following.

$$\forall X0.k9\_finseq\_1\ X0 = k5\_finseq\_1\ X0 \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.k10\_xtuple\_0\ (k10\_finseq\_1\ X0\ X1) = k2\_tarski\ X0\ X1 \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.(v1\_relat\_1\ (k10\_finseq\_1\ X0\ X1))\wedge(v1\_funct\_1\ (k10\_finseq\_1\ X0\ X1)) \tag{7}$$

Assume the following.

$$\forall X0.v1\_finseq\_1\ (k5\_finseq\_1\ X0) \tag{8}$$

Assume the following.

$$\forall X0.\forall X1.v1\_finseq\_1\ (k10\_finseq\_1\ X0\ X1) \tag{9}$$

Assume the following.

$$\forall X0.(v1\_relat\_1\ (k9\_finseq\_1\ X0))\wedge(v1\_funct\_1\ (k9\_finseq\_1\ X0)) \tag{10}$$

Assume the following.

$$\forall X0.\forall X1.k10\_finseq\_1\ X0\ X1 = k7\_finseq\_1\ (k9\_finseq\_1\ X0)\ (k9\_finseq\_1\ X1) \tag{11}$$

Assume the following.

$$\forall X0.\forall X1.k4\_tarski\ X0\ X1 = k2\_tarski\ (k2\_tarski\ X0\ X1)\ (k1\_tarski\ X0) \tag{12}$$

Assume the following.

$$\forall X0.k5\_finseq\_1\ X0 = k1\_tarski\ (k4\_tarski\ np\_\_1\ X0) \tag{13}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(X2 = k2\_tarski\ X0\ X1)\Leftrightarrow(\forall X3.(X3 \in X2)\Leftrightarrow((X3 = X0)\vee(X3 = X1))) \tag{14}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.k11\_finseq\_1\ X0\ X1\ X2 = k7\_finseq\_1\ (k7\_finseq\_1\ (k9\_finseq\_1\ X0)\ (k9\_finseq\_1\ X1))\ (k9\_finseq\_1\ X2) \tag{15}$$

Theorem 1

$$\forall X0.\forall X1.\forall X2.(X0\neq X1)\Rightarrow(k4\_finseq\_4\ (k11\_finseq\_1\ X0\ X1\ X2)\ X1 = np\_\_2)$$