t38_finseq_1 (TMYDJLUCSQDcidEmSpEHkr-PhxZTVDKVRqbo)

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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 $k9\_finseq\_1 : \iota \Rightarrow \iota$ be given. Let $k4\_finseq\_1 : \iota \Rightarrow \iota$ be given. Let $k2\_finseq\_1 : \iota \Rightarrow \iota$ be given. Let $np\_\_1 : \iota$ be given. Let $k10\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $k1\_tarski : \iota \Rightarrow \iota$ be given. Let $k4\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.\forall X1.\forall X2.(v1\_relat\_1\ X2) \Rightarrow ((X2 = k1\_tarski\ (k4\_tarski\ X0\ X1)) \Rightarrow ((k9\_xtuple\_0\ X2 = k1\_tarski\ X0) \wedge (k10\_xtuple\_0\ X2 = k1\_tarski\ X1))) \tag{1}$$

Assume the following.

$$\forall X0.k9\_finseq\_1\ X0 = k1\_tarski\ (k4\_tarski\ np\_\_1\ X0) \tag{2}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0) \wedge ((v1\_funct\_1\ X0) \wedge (v1\_finseq\_1\ X0))) \Rightarrow (k4\_finseq\_1\ X0 = k9\_xtuple\_0\ X0) \tag{3}$$

Assume the following.

$$\forall X0.\neg v1\_xboole\_0\ (k1\_tarski\ X0) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_relat\_1\ X1) \wedge (v1\_funct\_1\ X1)) \Rightarrow ((X1 = k9\_finseq\_1\ X0) \Leftrightarrow ((k9\_xtuple\_0\ X1 = k2\_finseq\_1\ np\_\_1) \wedge (k1\_funct\_1\ X1\ np\_\_1 = X0))) \tag{5}$$

Assume the following.

$$\forall X0.(v1\_xboole\_0\ X0) \Leftrightarrow (\forall X1.\neg X1 \in X0) \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.(X1 = k1\_tarski\ X0) \Leftrightarrow (\forall X2.(X2 \in X1) \Leftrightarrow (X2 = X0)) \tag{7}$$

Theorem 1

$$\forall X0.\forall X1.((v1\_relat\_1\ X1)\wedge((v1\_funct\_1\ X1)\wedge(v1\_finseq\_1\ X1)))\Rightarrow((X1 = k9\_finseq\_1\ X0)\Leftrightarrow((k4\_finseq\_1\ X1 = k2\_finseq\_1\ np\_\_1)\wedge(k10\_xtuple\_0\ X1 = k1\_tarski\ X0)))$$