t89_finseq_3 (TMMtE8qoWpt6BDCP2CsbXrfd1JhqSp4K3EE)

October 27, 2020

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 $v1\_finset\_1 : \iota \Rightarrow o$ be given. Let $v2\_funct\_1 : \iota \Rightarrow o$ be given. Let $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k10\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $k3\_finseq\_1 : \iota \Rightarrow \iota$ be given. Let $k1\_finseq\_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5\_card\_1 : \iota \Rightarrow \iota$ be given. Let $k3\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.((v1\_relat\_1\ X0) \wedge ((v1\_funct\_1\ X0) \wedge (v1\_finseq\_1\ X0))) \Rightarrow (\forall X1.(v2\_funct\_1\ X0) \Rightarrow (k3\_finseq\_1\ (k1\_finseq\_3\ X0\ X1) = k6\_xcmplx\_0\ (k3\_finseq\_1\ X0)\ (k5\_card\_1\ (k3\_xboole\_0\ X1\ (k10\_xtuple\_0\ X0))))) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.(r1\_tarski\ X0\ X1) \Rightarrow (k3\_xboole\_0\ X0\ X1 = X0) \tag{2}$$

Theorem 1

$$\forall X0.((v1\_relat\_1\ X0) \wedge ((v1\_funct\_1\ X0) \wedge (v1\_finseq\_1\ X0))) \Rightarrow (\forall X1.(v1\_finset\_1\ X1) \Rightarrow (((v2\_funct\_1\ X0) \wedge (r1\_tarski\ X1\ (k10\_xtuple\_0\ X0))) \Rightarrow (k3\_finseq\_1\ (k1\_finseq\_3\ X0\ X1) = k6\_xcmplx\_0\ (k3\_finseq\_1\ X0)\ (k5\_card\_1\ X1))))$$