t18_chord (TMWRQMMHsGMcbsyMRp-kBAouYhnygkPdaeoC)

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Let $m2\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $k3\_finseq\_1 : \iota \Rightarrow \iota$ be given. Let $k15\_finseq\_1 : \iota \Rightarrow \iota$ be given. Let $k5\_card\_1 : \iota \Rightarrow \iota$ be given. Let $v1\_finset\_1 : \iota \Rightarrow o$ be given. Let $r2\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_relat\_1 : \iota \Rightarrow o$ be given. Let $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $v2\_finseq\_1 : \iota \Rightarrow o$ be given. Let $v1\_finseq\_1 : \iota \Rightarrow o$ be given. Let $m1\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.\forall X1.(m2\_finseq\_1\ X1\ X0) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ X1)) \Rightarrow (k3\_finseq\_1\ (k15\_finseq\_1\ X2) = k5\_card\_1\ X2)) \tag{1}$$

Assume the following.

$$\forall X0.(v1\_finset\_1\ X0) \Rightarrow (\forall X1.(v1\_finset\_1\ X1) \Rightarrow ((r2\_xboole\_0\ X0\ X1) \Rightarrow ((\neg r1\_xxreal\_0\ (k5\_card\_1\ X1)\ (k5\_card\_1\ X0)) \wedge (k5\_card\_1\ X0 \in k5\_card\_1\ X1)))) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ X1)) \Leftrightarrow (r1\_tarski\ X0\ X1) \tag{3}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0) \wedge ((v1\_funct\_1\ X0) \wedge (v2\_finseq\_1\ X0))) \Rightarrow (((v1\_relat\_1\ X0) \wedge ((v1\_funct\_1\ X0) \wedge (v1\_finseq\_1\ X0))) \Rightarrow (k15\_finseq\_1\ X0 = X0)) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.r1\_tarski\ X0\ X0 \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.(m2\_finseq\_1\ X1\ X0) \Leftrightarrow (m1\_finseq\_1\ X1\ X0) \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_finseq\_1\ X1\ X0)\Rightarrow((v1\_relat\_1\ X1)\wedge((v1\_funct\_1\ X1)\wedge(v1\_finseq\_1\ X1))) \tag{7}$$

Assume the following.

$$\forall X0.\forall X1.(r2\_xboole\_0\ X0\ X1)\Leftrightarrow((r1\_tarski\ X0\ X1)\wedge(X0\neq X1)) \tag{8}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0)\wedge((v1\_funct\_1\ X0)\wedge(v1\_finseq\_1\ X0)))\Rightarrow((v1\_relat\_1\ X0)\wedge((v1\_funct\_1\ X0)\wedge(v2\_finseq\_1\ X0))) \tag{9}$$

Assume the following.

$$\forall X0.(v1\_finset\_1\ X0)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X0))\Rightarrow(v1\_finset\_1\ X1)) \tag{10}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0)\wedge((v1\_funct\_1\ X0)\wedge(v1\_finseq\_1\ X0)))\Rightarrow((v1\_relat\_1\ X0)\wedge((v1\_funct\_1\ X0)\wedge(v1\_finset\_1\ X0))) \tag{11}$$

Assume the following.

$$\forall X0.\forall X1.(X0\in X1)\Rightarrow(\neg X1\in X0) \tag{12}$$

Theorem 1

$$\forall X0.\forall X1.(m2\_finseq\_1\ X1\ X0)\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ X1))\Rightarrow((k3\_finseq\_1\ (k15\_finseq\_1\ X2)=k3\_finseq\_1\ X1)\Rightarrow(k15\_finseq\_1\ X2=X1)))$$