

t82\_finseq\_1  
(TMb9EqzSvEa4TV5wyPgSkHPCUS2AQCfzLvb)

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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  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k16\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $k5\_relat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0.(v7\_ordinal1\ X0) \Rightarrow (\forall X1.(v7\_ordinal1\ X1) \Rightarrow ((r1\_xxreal\_0\ X0\ X1) \Leftrightarrow (r1\_tarski\ (k2\_finseq\_1\ X0)\ (k2\_finseq\_1\ X1)))) \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((v1\_relat\_1\ X2) \wedge (v1\_funct\_1\ X2)) \Rightarrow ((r1\_tarski\ X0\ X1) \Rightarrow ((k5\_relat\_1\ (k5\_relat\_1\ X2\ X0)\ X1 = k5\_relat\_1\ X2\ X0) \wedge (k5\_relat\_1\ (k5\_relat\_1\ X2\ X1)\ X0 = k5\_relat\_1\ X2\ X0))) \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.((v7\_ordinal1\ X0) \wedge ((v1\_relat\_1\ X1) \wedge ((v1\_funct\_1\ X1) \wedge (v1\_finseq\_1\ X1)))) \Rightarrow ((v1\_relat\_1\ (k16\_finseq\_1\ X0\ X1)) \wedge ((v1\_funct\_1\ (k16\_finseq\_1\ X0\ X1)) \wedge (v1\_finseq\_1\ (k16\_finseq\_1\ X0\ X1)))) \quad (3)$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0) \Rightarrow (\forall X1.((v1\_relat\_1\ X1) \wedge ((v1\_funct\_1\ X1) \wedge (v1\_finseq\_1\ X1))) \Rightarrow (k16\_finseq\_1\ X0\ X1 = k5\_relat\_1\ X1\ (k2\_finseq\_1\ X0))) \quad (4)$$

**Theorem 1**

$$\forall X0.((v1\_relat\_1\ X0) \wedge ((v1\_funct\_1\ X0) \wedge (v1\_finseq\_1\ X0))) \Rightarrow (\forall X1.(v7\_ordinal1\ X1) \Rightarrow (\forall X2.(v7\_ordinal1\ X2) \Rightarrow ((r1\_xxreal\_0\ X2\ X1) \Rightarrow (k16\_finseq\_1\ X2\ (k16\_finseq\_1\ X1\ X0) = k16\_finseq\_1\ X2\ X0))))$$