t26_finseq_4 (TMLExpxDjv4m11rDzsz4C9MqHns54mW8qsA)

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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 $r2\_finseq\_4 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v7\_ordinal1 : \iota \Rightarrow o$ be given. Let $k4\_finseq\_1 : \iota \Rightarrow \iota$ be given. Let $k4\_finseq\_4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_finseq\_4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.((v1\_relat\_1\ X0) \wedge ((v1\_funct\_1\ X0) \wedge (v1\_finseq\_1\ X0))) \Rightarrow (\forall X1.(r2\_finseq\_4\ X0\ X1) \Rightarrow (k1\_finseq\_4\ X0\ X1 = k4\_finseq\_4\ X0\ X1)) \tag{1}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0) \wedge ((v1\_funct\_1\ X0) \wedge (v1\_finseq\_1\ X0))) \Rightarrow (k4\_finseq\_1\ X0 = k9\_xtuple\_0\ X0) \tag{2}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0) \wedge (v1\_funct\_1\ X0)) \Rightarrow (\forall X1.(r2\_finseq\_4\ X0\ X1) \Rightarrow (\forall X2.(X2 = k1\_finseq\_4\ X0\ X1) \Leftrightarrow ((X2 \in k9\_xtuple\_0\ X0) \wedge (k1\_funct\_1\ X0\ X2 = X1)))) \tag{3}$$

Theorem 1

$$\forall X0.((v1\_relat\_1\ X0) \wedge ((v1\_funct\_1\ X0) \wedge (v1\_finseq\_1\ X0))) \Rightarrow (\forall X1.(r2\_finseq\_4\ X0\ X1) \Rightarrow (\forall X2.(v7\_ordinal1\ X2) \Rightarrow (\neg(X2 \in k4\_finseq\_1\ X0) \wedge ((X2 \neq k4\_finseq\_4\ X0\ X1) \wedge (k1\_funct\_1\ X0\ X2 = X1)))))$$