

t36_finseq_4

(TMWNI SWT vmy J3u W83z Q8paid Sm TYw FbeffK)

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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 $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k4_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k5_finseq_4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k5_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_finseq_4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k2_finseq_1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} \forall X0. \forall X1. \forall X2. ((v1_relat_1 X2) \wedge (v1_funct_1 \\ X2)) \Rightarrow ((X0 \in k9_xtuple_0 (k5_relat_1 X2 X1)) \Rightarrow (k1_funct_1 (k5_relat_1 \\ X2 X1) X0 = k1_funct_1 X2 X0)) \end{aligned} \tag{1}$$

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.

$$\begin{aligned} \forall X0. \forall X1. ((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finseq_1 \\ X0))) \Rightarrow ((v1_relat_1 (k5_finseq_4 X0 X1)) \wedge ((v1_funct_1 (k5_finseq_4 \\ X0 X1)) \wedge (v1_finseq_1 (k5_finseq_4 X0 X1)))) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} \forall X0. ((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finseq_1 X0))) \Rightarrow \\ (\forall X1. (X1 \in k10_xtuple_0 X0) \Rightarrow (\forall X2. ((v1_relat_1 X2) \wedge \\ ((v1_funct_1 X2) \wedge (v1_finseq_1 X2)))) \Rightarrow ((X2 = k5_finseq_4 X0 X1) \Leftrightarrow \\ (\exists X3. (v7_ordinal1 X3) \wedge ((X3 = k6_xcmplx_0 (k4_finseq_4 \\ X0 X1) np_1) \wedge (X2 = k5_relat_1 X0 (k2_finseq_1 X3)))))) \end{aligned} \tag{4}$$

Theorem 1

$$\begin{aligned} \forall X0.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finseq_1 X0))) \Rightarrow \\ (\forall X1. \forall X2. (v7_ordinal1 X2) \Rightarrow (((X1 \in k10_xtuple_0 \\ X0) \wedge (X2 \in k4_finseq_1 (k5_finseq_4 X0 X1))) \Rightarrow (k1_funct_1 X0 X2 = \\ k1_funct_1 (k5_finseq_4 X0 X1) X2))) \end{aligned}$$