

t4_finseq_6 (TMbKMiD- mUQyQFRQyQ7hJzH4TynUTgusMZ7H)

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Let $k5_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k11_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_finseq_1 : \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k9_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k2_finseq_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. 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 $k4_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $np_2 : \iota$ be given. Let $k2_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. k2_finseq_2 \ np_1 \ X0 = k9_finseq_1 \ X0 \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (k11_finseq_1 \ X0 \ X1 \ X2 = k7_finseq_1 \\ & (k9_finseq_1 \ X0) \ (k10_finseq_1 \ X1 \ X2)) \wedge (k11_finseq_1 \ X0 \ X1 \ X2 = \\ & k7_finseq_1 \ (k10_finseq_1 \ X0 \ X1) \ (k9_finseq_1 \ X2)) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((v1_relat_1 \ X1) \wedge ((v1_funct_1 \ X1) \wedge (v1_finseq_1 \\ & X1))) \Rightarrow ((X1 = k9_finseq_1 \ X0) \Leftrightarrow ((k4_finseq_1 \ X1 = k2_finseq_1 \ np_1) \wedge \\ & (k10_xtuple_0 \ X1 = k1_tarski \ X0))) \end{aligned} \quad (3)$$

Assume the following.

$$(k2_finseq_1 \ np_1 = k1_tarski \ np_1) \wedge (k2_finseq_1 \ np_2 = k2_tarski \ np_1 \ np_2) \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((v1_relat_1 \ X0) \wedge ((v1_funct_1 \ X0) \wedge (v1_finseq_1 \ X0))) \Rightarrow \\ & (\forall X1. ((v1_relat_1 \ X1) \wedge ((v1_funct_1 \ X1) \wedge (v1_finseq_1 \\ & X1)))) \Rightarrow (X0 = k5_relat_1 \ (k7_finseq_1 \ X0 \ X1) \ (k4_finseq_1 \ X0)) \end{aligned} \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.k10_xtuple_0 (k10_finseq_1 X0 X1) = k2_tarski X0 X1 \quad (6)$$

Assume the following.

$$\forall X0.k9_finseq_1 X0 = k5_finseq_1 X0 \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.(v1_relat_1 (k10_finseq_1 X0 X1)) \wedge (v1_funct_1 (k10_finseq_1 X0 X1)) \quad (8)$$

Assume the following.

$$\forall X0.v1_finseq_1 (k5_finseq_1 X0) \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.v1_finseq_1 (k10_finseq_1 X0 X1) \quad (10)$$

Assume the following.

$$\forall X0.(v1_relat_1 (k9_finseq_1 X0)) \wedge (v1_funct_1 (k9_finseq_1 X0)) \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.k10_finseq_1 X0 X1 = k7_finseq_1 (k9_finseq_1 X0) (k9_finseq_1 X1) \quad (12)$$

Assume the following.

$$\forall X0.\forall X1.k4_tarski X0 X1 = k2_tarski (k2_tarski X0 X1) (k1_tarski X0) \quad (13)$$

Assume the following.

$$\forall X0.k5_finseq_1 X0 = k1_tarski (k4_tarski np_1 X0) \quad (14)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.k11_finseq_1 X0 X1 X2 = k7_finseq_1 (k7_finseq_1 (k9_finseq_1 X0) (k9_finseq_1 X1)) (k9_finseq_1 X2) \quad (15)$$

Assume the following.

$$\forall X0.\forall X1.k2_tarski X0 X1 = k2_tarski X1 X0 \quad (16)$$

Theorem 1

$$\forall X0.\forall X1.\forall X2.k5_relat_1 (k11_finseq_1 X0 X1 X2) (k2_finseq_1 np_1) = k9_finseq_1 X0$$