

l13_pnproc_1

(TMYsSpXMpGJusjhbuYi65ST8oa2bh4cSd1M)

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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 $k4_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k15_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k14_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_finseq_1 : \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v2_finseq_1 X0))) \Rightarrow (k10_xtuple_0 (k14_finseq_1 (k9_xtuple_0 X0)) = k9_xtuple_0 X0) \quad (1)$$

Assume the following.

$$\forall X0.(v1_relat_1 X0) \Rightarrow (\forall X1.(v1_relat_1 X1) \Rightarrow ((r1_tarski (k10_xtuple_0 X0) (k9_xtuple_0 X1)) \Rightarrow (k9_xtuple_0 (k3_relat_1 X0 X1) = k9_xtuple_0 X0))) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. r1_tarski X0 X0 \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. (m2_finseq_1 X1 X0) \Leftrightarrow (m1_finseq_1 X1 X0) \quad (4)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finseq_1 X0))) \Rightarrow (k4_finseq_1 X0 = k9_xtuple_0 X0) \quad (5)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v2_finseq_1 X0))) \Rightarrow ((v1_relat_1 (k15_finseq_1 X0)) \wedge ((v1_funct_1 (k15_finseq_1 X0)) \wedge (v1_finseq_1 (k15_finseq_1 X0)))) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.(m1_finseq_1 X1 X0)\Rightarrow((v1_relat_1 X1)\wedge(v1_funct_1 X1)\wedge(v1_finseq_1 X1)) \quad (7)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0)\wedge((v1_funct_1 X0)\wedge(v2_finseq_1 X0)))\Rightarrow((v1_relat_1 (k15_finseq_1 X0))\wedge(v1_funct_1 (k15_finseq_1 X0))) \quad (8)$$

Assume the following.

$$\forall X0.m2_finseq_1 (k14_finseq_1 X0) k5_numbers \quad (9)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0)\wedge((v1_funct_1 X0)\wedge(v2_finseq_1 X0)))\Rightarrow(k15_finseq_1 X0 = k3_relat_1 (k14_finseq_1 (k9_xtuple_0 X0)) X0) \quad (10)$$

Theorem 1

$$\forall X0.((v1_relat_1 X0)\wedge((v1_funct_1 X0)\wedge(v2_finseq_1 X0)))\Rightarrow(k4_finseq_1 (k15_finseq_1 X0) = k4_finseq_1 (k14_finseq_1 (k9_xtuple_0 X0)))$$