

l75_pnproc_1 (TMXhNY-
LyX55BgdFFTgf2MEHV5B1a7qRNM48)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ 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 $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k12_pnproc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_nat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2_funct_1 : \iota \Rightarrow o$ be given. Let $v2_finseq_1 : \iota \Rightarrow o$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k2_finseq_1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.((v1_relat_1 \\ & X1) \wedge ((v1_funct_1 X1) \wedge (v2_finseq_1 X1))) \Rightarrow (\exists X2.((v1_relat_1 \\ & X2) \wedge ((v1_funct_1 X2) \wedge (v2_finseq_1 X2))) \wedge ((k9_xtuple_0 X2 = k9_xtuple_0 \\ & X1) \wedge ((k10_xtuple_0 X2 = k9_xtuple_0 (k12_pnproc_1 X1 X0)) \wedge ((\forall X3. \\ & (m1_subset_1 X3 k5_numbers) \Rightarrow ((X3 \in k9_xtuple_0 X1) \Rightarrow (k1_funct_1 \\ & X2 X3 = k2_nat_1 X0 X3))) \wedge (v2_funct_1 X2)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finseq_1 X0))) \Rightarrow (k4_finseq_1 X0 = k9_xtuple_0 X0) \quad (2)$$

Assume the following.

$$\forall X0.(v1_relat_1 X0) \Rightarrow ((v1_finseq_1 X0) \Leftrightarrow (\exists X1.(v7_ordinal1 X1) \wedge (k9_xtuple_0 X0 = k2_finseq_1 X1))) \quad (3)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finseq_1 X0))) \Rightarrow ((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v2_finseq_1 X0))) \quad (4)$$

Theorem 1

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.((v1_relat_1 \\ & X1) \wedge ((v1_funct_1 X1) \wedge (v1_finseq_1 X1))) \Rightarrow (\exists X2.((v1_relat_1 \\ & X2) \wedge ((v1_funct_1 X2) \wedge (v1_finseq_1 X2))) \wedge ((k4_finseq_1 X2 = k4_finseq_1 \\ & X1) \wedge ((k10_xtuple_0 X2 = k9_xtuple_0 (k12_pnproc_1 X1 X0)) \wedge ((\forall X3. \\ & (m1_subset_1 X3 k5_numbers) \Rightarrow ((X3 \in k4_finseq_1 X1) \Rightarrow (k1_funct_1 \\ & X2 X3 = k2_nat_1 X0 X3))) \wedge (v2_funct_1 X2)))))) \end{aligned}$$