

t47_pnproc_1 (TMZZD- snWLC2NGtjsZGB6tU7Y7twQFE2rosW)

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Let $m2_pnproc_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m3_pnproc_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k11_pnproc_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_finseq_2 : \iota \Rightarrow \iota$ be given. Let $k3_pre_poly : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_domain_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_domain_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_pre_poly : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_enumset1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k4_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $m1_finseq_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m2_finseq_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k13_finseq_1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.k2_enumset1\ X0\ X1\ X2\ X3 = k2_enumset1\ X0\ X2\ X1\ X3 \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.k2_enumset1\ X0\ X1\ X2\ X3 = k2_xboole_0\ (k2_tarski\ X0\ X1)\ (k2_tarski\ X2\ X3) \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.(m2_pnproc_1\ X1\ X0) \Rightarrow (\forall X2.(m3_pnproc_1\ X2\ X0\ X1) \Rightarrow (\forall X3.(m3_pnproc_1\ X3\ X0\ X1) \Rightarrow (k11_pnproc_1\ X0\ X1\ (k6_domain_1\ (k3_finseq_2\ X1)\ (k3_pre_poly\ X1\ X2))\ (k6_domain_1\ (k3_finseq_2\ X1)\ (k3_pre_poly\ X1\ X3)) = k7_domain_1\ (k3_finseq_2\ X1)\ (k4_pre_poly\ X1\ X2\ X3)\ (k4_pre_poly\ X1\ X3\ X2)))) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.(m2_pnproc_1\ X1\ X0) \Rightarrow (\forall X2.(m1_subset_1\ X2\ (k1_zfmisc_1\ (k3_finseq_2\ X1))) \Rightarrow (\forall X3.(m1_subset_1\ X3\ (k1_zfmisc_1\ (k3_finseq_2\ X1))) \Rightarrow (\forall X4.(m1_subset_1\ X4\ (k1_zfmisc_1\ (k3_finseq_2\ X1))) \Rightarrow (k11_pnproc_1\ X0\ X1\ (k4_subset_1\ (k3_finseq_2\ X1)\ X2\ X3)\ X4 = k4_subset_1\ (k3_finseq_2\ X1)\ (k11_pnproc_1\ X0\ X1\ X2\ X4)\ (k11_pnproc_1\ X0\ X1\ X3\ X4)))))) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.k2_tarSKI X0 X1 = k2_xboole_0 (k1_tarSKI X0) (k1_tarSKI X1) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.(m2_pnproc_1 X1 X0) \Rightarrow (\forall X2.(m3_pnproc_1 X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1)) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.(m1_finseq_2 X1 X0) \Rightarrow (\forall X2.(m2_finseq_2 X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1)) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.\forall X4.((\neg v1_xboole_0 X0) \wedge ((m1_subset_1 X1 X0) \wedge ((m1_subset_1 X2 X0) \wedge ((m1_subset_1 X3 X0) \wedge (m1_subset_1 X4 X0)))))) \Rightarrow (k9_domain_1 X0 X1 X2 X3 X4 = k2_enumset1 X1 X2 X3 X4) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((\neg v1_xboole_0 X0) \wedge ((m1_subset_1 X1 X0) \wedge (m1_subset_1 X2 X0))) \Rightarrow (k7_domain_1 X0 X1 X2 = k2_tarSKI X1 X2) \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1_xboole_0 X0) \wedge (m1_subset_1 X1 X0)) \Rightarrow (k6_domain_1 X0 X1 = k1_tarSKI X1) \quad (10)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((m1_subset_1 X1 (k1_zfmisc_1 X0)) \wedge (m1_subset_1 X2 (k1_zfmisc_1 X0))) \Rightarrow (k4_subset_1 X0 X1 X2 = k2_xboole_0 X1 X2) \quad (11)$$

Assume the following.

$$\forall X0.k3_finseq_2 X0 = k13_finseq_1 X0 \quad (12)$$

Assume the following.

$$\forall X0.\neg v1_xboole_0 (k13_finseq_1 X0) \quad (13)$$

Assume the following.

$$\forall X0.\forall X1.(m2_pnproc_1 X1 X0) \Rightarrow (\neg v1_xboole_0 X1) \quad (14)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((\neg v1_xboole_0 X0)\wedge((m1_subset_1 X1 X0)\wedge(m1_subset_1 X2 X0)))\Rightarrow(m1_subset_1 (k7_domain_1 X0 X1 X2) (k1_zfmisc_1 X0)) \quad (15)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1_xboole_0 X0)\wedge(m1_subset_1 X1 X0))\Rightarrow(m1_subset_1 (k6_domain_1 X0 X1) (k1_zfmisc_1 X0)) \quad (16)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((\neg v1_xboole_0 X0)\wedge((m1_subset_1 X1 X0)\wedge(m1_subset_1 X2 X0)))\Rightarrow(m2_finseq_2 (k4_pre_poly X0 X1 X2) X0 (k3_finseq_2 X0)) \quad (17)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1_xboole_0 X0)\wedge(m1_subset_1 X1 X0))\Rightarrow(m2_finseq_2 (k3_pre_poly X0 X1) X0 (k3_finseq_2 X0)) \quad (18)$$

Assume the following.

$$\forall X0.m1_finseq_2 (k3_finseq_2 X0) X0 \quad (19)$$

Assume the following.

$$\forall X0.\forall X1.k2_xboole_0 X0 X1 = k2_xboole_0 X1 X0 \quad (20)$$

Theorem 1

$$\forall X0.\forall X1.(m2_pnproc_1 X1 X0)\Rightarrow(\forall X2.(m3_pnproc_1 X2 X0 X1)\Rightarrow(\forall X3.(m3_pnproc_1 X3 X0 X1)\Rightarrow(\forall X4.(m3_pnproc_1 X4 X0 X1)\Rightarrow(k11_pnproc_1 X0 X1 (k7_domain_1 (k3_finseq_2 X1) (k3_pre_poly X1 X2) (k3_pre_poly X1 X3)) (k6_domain_1 (k3_finseq_2 X1) (k3_pre_poly X1 X4)) = k9_domain_1 (k3_finseq_2 X1) (k4_pre_poly X1 X2 X4) (k4_pre_poly X1 X3 X4) (k4_pre_poly X1 X4 X2) (k4_pre_poly X1 X4 X3))))))$$