

t3_pnproc_1

(TMU6GdtCmwHumh7YfAdrcGptSk66fqcgwfP)

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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 $v2_finseq_1 : \iota \Rightarrow o$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k15_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k9_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k6_numbers : \iota$ be given. Let $k14_finseq_1 : \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_finseq_1 : \iota \Rightarrow \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np_1 : \iota$ be given. Let $np_0 : \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $k2_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v6_membered : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0. \forall X1. \forall X2. (v1_relat_1 X2) \Rightarrow ((X2 = k1_tarski \\ (k4_tarski X0 X1)) \Rightarrow ((k9_xtuple_0 X2 = k1_tarski X0) \wedge (k10_xtuple_0 \\ X2 = k1_tarski X1))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. \forall X2. ((v1_relat_1 X2) \wedge (v1_funct_1 \\ X2)) \Rightarrow ((X2 = k1_tarski (k4_tarski X0 X1)) \Rightarrow (k1_funct_1 X2 X0 = X1)) \end{aligned} \tag{2}$$

Assume the following.

$$\forall X0. (v1_xboole_0 X0) \Rightarrow (X0 = k1_xboole_0) \tag{3}$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. \forall X2. \neg (X0 \in X1) \wedge ((m1_subset_1 X1 (\\ k1_zfmisc_1 X2)) \wedge (v1_xboole_0 X2)) \end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. \forall X2. ((X0 \in X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 \\ X2))) \Rightarrow (m1_subset_1 X0 X2) \end{aligned} \tag{5}$$

Assume the following.

$$\forall X0.(v7_ordinal1\ X0)\Rightarrow((k6_numbers\neq X0)\Rightarrow(k14_finseq_1\ (k1_tarski\ X0) = k9_finseq_1\ X0)) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.(m1_subset_1\ X0\ (k1_zfmisc_1\ X1))\Leftrightarrow(r1_tarski\ X0\ X1) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.((v1_relat_1\ X1)\wedge(v1_funct_1\ X1))\Rightarrow((X0\in\ k9_xtuple_0\ X1)\Rightarrow(k3_relat_1\ (k9_finseq_1\ X0)\ X1 = k9_finseq_1\ (k1_funct_1\ X1\ X0))) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.(m1_subset_1\ X0\ X1)\Rightarrow((v1_xboole_0\ X1)\vee\ (X0\in\ X1)) \quad (9)$$

Assume the following.

$$\forall X0.(v7_ordinal1\ X0)\Rightarrow(\forall X1.(v7_ordinal1\ X1)\Rightarrow((X0\in\ k2_finseq_1\ X1)\Leftrightarrow((r1_xxreal_0\ np_1\ X0)\wedge(r1_xxreal_0\ X0\ X1)))) \quad (10)$$

Assume the following.

$$v1_xboole_0\ np_0 \quad (11)$$

Assume the following.

$$\neg r1_xxreal_0\ np_1\ np_0 \quad (12)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (13)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (14)$$

Assume the following.

$$\forall X0.(v7_ordinal1\ X0)\Rightarrow(m1_subset_1\ (k2_finseq_1\ X0)\ (k1_zfmisc_1\ k5_numbers)) \quad (15)$$

Assume the following.

$$\forall X0.\forall X1.k4_tarski\ X0\ X1 = k2_tarski\ (k2_tarski\ X0\ X1)\ (k1_tarski\ X0) \quad (16)$$

Assume the following.

$$k1_xboole_0 = the (\lambda X0 : \iota.v1_xboole_0 X0) \quad (17)$$

Assume the following.

$$\forall X0.\forall X1.(X1 = k1_tarski X0) \Leftrightarrow (\forall X2.(X2 \in X1) \Leftrightarrow (X2 = X0)) \quad (18)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v2_finseq_1 X0))) \Rightarrow (k15_finseq_1 X0 = k3_relat_1 (k14_finseq_1 (k9_xtuple_0 X0) X0)) \quad (19)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow ((v2_finseq_1 X0) \Leftrightarrow (\exists X1.(v7_ordinal1 X1) \wedge (r1_tarski (k9_xtuple_0 X0) (k2_finseq_1 X1)))) \quad (20)$$

Assume the following.

$$\forall X0.\forall X1.k2_tarski X0 X1 = k2_tarski X1 X0 \quad (21)$$

Assume the following.

$$\forall X0.(v6_membered X0) \Rightarrow (\forall X1.(m1_subset_1 X1 X0) \Rightarrow (v7_ordinal1 X1)) \quad (22)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 (k1_zfmisc_1 k5_numbers)) \Rightarrow (v6_membered X0) \quad (23)$$

Theorem 1

$$\forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.\forall X2. ((v1_relat_1 X2) \wedge ((v1_funct_1 X2) \wedge (v2_finseq_1 X2))) \Rightarrow ((X2 = k1_tarski (k4_tarski X0 X1)) \Rightarrow (k15_finseq_1 X2 = k9_finseq_1 X1)))$$