

l20_scmringi
(TMb66c7t5ra1F9L1rTi4iZk5mLHja9XnDqD)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v13_algstr_0 : \iota \Rightarrow o$ be given. Let $v2_rlvect_1 : \iota \Rightarrow o$ be given. Let $v3_rlvect_1 : \iota \Rightarrow o$ be given. Let $v4_rlvect_1 : \iota \Rightarrow o$ be given. Let $v3_group_1 : \iota \Rightarrow o$ be given. Let $v4_vectsp_1 : \iota \Rightarrow o$ be given. Let $v5_vectsp_1 : \iota \Rightarrow o$ be given. Let $l6_algstr_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_scmringi : \iota \Rightarrow \iota$ be given. Let $k2_compos_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_7 : \iota$ be given. Let $k4_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k5_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k2_finseq_1 : \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $k3_xtuple_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k4_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_ordinal1 : \iota$ be given. Let $k7_card_1 : \iota \Rightarrow \iota$ be given. Let $np_8 : \iota$ be given. Let $k2_scm_inst : \iota$ be given. Let $k2_finseq_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_enumset1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_2 : \iota$ be given. Let $np_3 : \iota$ be given. Let $np_4 : \iota$ be given. Let $k5_numbers : \iota$ be given. Let $np_6 : \iota$ be given. Let $k12_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $np_5 : \iota$ be given. Let $k7_scmringi : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ 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 $k9_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k5_finseq_1 : \iota \Rightarrow \iota$ be given. Let $v1_compos_0 : \iota \Rightarrow o$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $l2_algstr_0 : \iota \Rightarrow o$ be given. Let $l5_algstr_0 : \iota \Rightarrow o$ be given. Let $l2_struct_0 : \iota \Rightarrow o$

be given. Let $l1_algstr_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge (l1_struct_0 X0)) \Rightarrow (\forall X1. \\
& (m1_subset_1 X1 (k1_scmringi X0)) \Rightarrow (\neg(\neg(X1 \in k1_tarski (k3_xtuple_0 \\
& k6_numbers k1_xboole_0 k1_xboole_0)) \wedge (k4_xtuple_0 X1 = k6_numbers)) \wedge \\
& ((\neg(X1 \in ReplSep3 (toset (\lambda X2 : \iota.m2_subset_1 X2 k4_ordinal1 \\
& (k7_card_1 np_8))) (\lambda X2 : \iota.toset (\lambda X3 : \iota.m1_subset_1 \\
& X3 k2_scm_inst)) (\lambda X2 : \iota.\lambda X3 : \iota.toset (\lambda X4 : \iota. \\
& m1_subset_1 X4 k2_scm_inst)) (\lambda X2 : \iota.\lambda X3 : \iota.\lambda X4 : \\
& \iota.X2 \in k2_enumset1 np_1 np_2 np_3 np_4) (\lambda X2 : \iota.\lambda X3 : \\
& \iota.\lambda X4 : \iota.k3_xtuple_0 X2 k1_xboole_0 (k2_finseq_4 k2_scm_inst \\
& X3 X4))) \wedge (\neg(k4_xtuple_0 X1 \neq np_1) \wedge ((k4_xtuple_0 X1 \neq np_2) \wedge \\
& ((k4_xtuple_0 X1 \neq np_3) \wedge (k4_xtuple_0 X1 \neq np_4)))))) \wedge ((\neg(X1 \in \\
& ReplSep (toset (\lambda X2 : \iota.m1_subset_1 X2 k5_numbers)) (\lambda X2 : \\
& \iota.True) (\lambda X2 : \iota.k3_xtuple_0 np_6 (k12_finseq_1 k5_numbers \\
& X2) k1_xboole_0)) \wedge (k4_xtuple_0 X1 = np_6)) \wedge ((\neg(X1 \in ReplSep2 \\
& (toset (\lambda X2 : \iota.m1_subset_1 X2 k5_numbers)) (\lambda X2 : \iota. \\
& toset (\lambda X3 : \iota.m1_subset_1 X3 k2_scm_inst)) (\lambda X2 : \iota. \\
& \lambda X3 : \iota.True) (\lambda X2 : \iota.\lambda X3 : \iota.k3_xtuple_0 np_7 \\
& (k12_finseq_1 k5_numbers X2) (k12_finseq_1 k2_scm_inst X3)))) \wedge \\
& (k4_xtuple_0 X1 = np_7)) \wedge (\neg(X1 \in ReplSep2 (toset (\lambda X2 : \iota. \\
& m1_subset_1 X2 k2_scm_inst)) (\lambda X2 : \iota.toset (\lambda X3 : \iota. \\
& m1_subset_1 X3 (u1_struct_0 X0))) (\lambda X2 : \iota.\lambda X3 : \iota.True) \\
& (\lambda X2 : \iota.\lambda X3 : \iota.k3_xtuple_0 np_5 k1_xboole_0 (k7_scmringi \\
& X0 X2 X3))) \wedge (k4_xtuple_0 X1 = np_5)))))))))
\end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
& \forall X0.\forall X1.((v1_relat_1 X1) \wedge ((v1_funct_1 X1) \wedge (v1_finseq_1 \\
& X1))) \Rightarrow ((X1 = k9_finseq_1 X0) \Leftrightarrow ((k4_finseq_1 X1 = k2_finseq_1 np_1) \wedge \\
& (k10_xtuple_0 X1 = k1_tarski X0)))
\end{aligned} \tag{2}$$

Assume the following.

$$\neg v1_xboole_0 np_7 \tag{3}$$

Assume the following.

$$\forall X0.k9_finseq_1 X0 = k5_finseq_1 X0 \tag{4}$$

Assume the following.

$$k6_numbers = k1_xboole_0 \tag{5}$$

Assume the following.

$$k5_numbers = k4_ordinal1 \tag{6}$$

Assume the following.

$$\begin{aligned}
& \forall X0.\forall X1.(((\neg v1_xboole_0 X0) \wedge (v1_compos_0 X0)) \wedge \\
& (m1_subset_1 X1 X0)) \Rightarrow (k2_compos_0 X0 X1 = k4_xtuple_0 X1)
\end{aligned} \tag{7}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1_xboole_0 X0)\wedge(m1_subset_1 X1 X0))\Rightarrow (k12_finseq_1 X0 X1 = k5_finseq_1 X1) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.k5_xtuple_0 (k3_xtuple_0 X0 X1 X2) = X1 \quad (9)$$

Assume the following.

$$\forall X0.v1_finseq_1 (k5_finseq_1 X0) \quad (10)$$

Assume the following.

$$(\neg v1_xboole_0 k4_ordinal1)\wedge(v3_ordinal1 k4_ordinal1) \quad (11)$$

Assume the following.

$$\begin{aligned} &\forall X0.((\neg v2_struct_0 X0)\wedge((v13_algstr_0 X0)\wedge((v2_rlvect_1 \\ &X0)\wedge((v3_rlvect_1 X0)\wedge((v4_rlvect_1 X0)\wedge((v3_group_1 X0)\wedge(\\ &(v4_vectsp_1 X0)\wedge((v5_vectsp_1 X0)\wedge(l6_algstr_0 X0))))))\Rightarrow \\ &((\neg v1_xboole_0 (k1_scmringi X0))\wedge(v1_compos_0 (k1_scmringi \\ &X0)))) \end{aligned} \quad (12)$$

Assume the following.

$$v1_xboole_0 k1_xboole_0 \quad (13)$$

Assume the following.

$$\forall X0.(l6_algstr_0 X0)\Rightarrow((l2_algstr_0 X0)\wedge(l5_algstr_0 X0)) \quad (14)$$

Assume the following.

$$\forall X0.(l2_struct_0 X0)\Rightarrow(l1_struct_0 X0) \quad (15)$$

Assume the following.

$$\forall X0.(l2_algstr_0 X0)\Rightarrow((l2_struct_0 X0)\wedge(l1_algstr_0 X0)) \quad (16)$$

Assume the following.

$$\forall X0.(v1_relat_1 (k9_finseq_1 X0))\wedge(v1_funct_1 (k9_finseq_1 X0)) \quad (17)$$

Theorem 1

$$\begin{aligned} &\forall X0.((\neg v2_struct_0 X0)\wedge((v13_algstr_0 X0)\wedge((v2_rlvect_1 \\ &X0)\wedge((v3_rlvect_1 X0)\wedge((v4_rlvect_1 X0)\wedge((v3_group_1 X0)\wedge(\\ &(v4_vectsp_1 X0)\wedge((v5_vectsp_1 X0)\wedge(l6_algstr_0 X0))))))\Rightarrow \\ &(\forall X1.(m1_subset_1 X1 (k1_scmringi X0))\Rightarrow((k2_compos_0 \\ &(k1_scmringi X0) X1 = np_7)\Rightarrow(k4_finseq_1 (k5_xtuple_0 X1) = k2_finseq_1 \\ &np_1))) \end{aligned}$$