

l28_scmpds_i (TMakN-
MWuqGJR29FeWhFeuCA2rdo2XyFC7C1)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_scmpds_i : \iota$ be given. Let $k2_compos_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_2 : \iota$ be given. Let $np_3 : \iota$ be given. Let $k5_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ 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 $k4_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k4_numbers : \iota$ be given. Let $np_14 : \iota$ be given. Let $k12_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_scm_inst : \iota$ be given. Let $np_1 : \iota$ 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 $np_15 : \iota$ be given. Let $k2_scmpds_i : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k11_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_enumset1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_4 : \iota$ be given. Let $np_5 : \iota$ be given. Let $np_6 : \iota$ be given. Let $np_7 : \iota$ be given. Let $np_8 : \iota$ be given. Let $k7_finseq_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_9 : \iota$ be given. Let $np_10 : \iota$ be given. Let $np_11 : \iota$ be given. Let $np_12 : \iota$ be given. Let $np_13 : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given.

Let $v1_compos_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
& \forall X0.(m1_subset_1 X0 k1_scmpds_i) \Rightarrow (\neg(\neg(X0 \in k1_tarski (\\
& k3_xtuple_0 k6_numbers k1_xboole_0 k1_xboole_0)) \wedge (k4_xtuple_0 \\
& X0 = k6_numbers)) \wedge (\neg(X0 \in ReplSep (toset (\lambda X1 : \iota.m1_subset_1 \\
& X1 k4_numbers)) (\lambda X1 : \iota.True) (\lambda X1 : \iota.k3_xtuple_0 np_14 \\
& k1_xboole_0 (k12_finseq_1 k4_numbers X1))) \wedge (k4_xtuple_0 X0 = \\
& np_14)) \wedge (\neg(X0 \in ReplSep (toset (\lambda X1 : \iota.m1_subset_1 X1 k2_scm_inst)) \\
& (\lambda X1 : \iota.True) (\lambda X1 : \iota.k3_xtuple_0 np_1 k1_xboole_0 \\
& (k12_finseq_1 k2_scm_inst X1))) \wedge (k4_xtuple_0 X0 = np_1)) \wedge ((\\
& \neg(X0 \in ReplSep3 (toset (\lambda X1 : \iota.m2_subset_1 X1 k4_ordinal1 \\
& (k7_card_1 np_15))) (\lambda X1 : \iota.toset (\lambda X2 : \iota.m1_subset_1 \\
& X2 k2_scm_inst)) (\lambda X1 : \iota.\lambda X2 : \iota.toset (\lambda X3 : \iota. \\
& m1_subset_1 X3 k4_numbers)) (\lambda X1 : \iota.\lambda X2 : \iota.\lambda X3 : \\
& \iota.X1 \in k2_tarski np_2 np_3) (\lambda X1 : \iota.\lambda X2 : \iota.\lambda X3 : \\
& \iota.k3_xtuple_0 X1 k1_xboole_0 (k2_scmpds_i X2 X3))) \wedge ((k4_xtuple_0 \\
& X0 = np_2) \vee (k4_xtuple_0 X0 = np_3)) \wedge (\neg(X0 \in ReplSep4 (toset \\
& (\lambda X1 : \iota.m2_subset_1 X1 k4_ordinal1 (k7_card_1 np_15))) \\
& (\lambda X1 : \iota.toset (\lambda X2 : \iota.m1_subset_1 X2 k2_scm_inst)) \\
& (\lambda X1 : \iota.\lambda X2 : \iota.toset (\lambda X3 : \iota.m1_subset_1 X3 k4_numbers)) \\
& (\lambda X1 : \iota.\lambda X2 : \iota.\lambda X3 : \iota.toset (\lambda X4 : \iota.m1_subset_1 \\
& X4 k4_numbers)) (\lambda X1 : \iota.\lambda X2 : \iota.\lambda X3 : \iota.\lambda X4 : \\
& \iota.X1 \in k3_enumset1 np_4 np_5 np_6 np_7 np_8) (\lambda X1 : \iota. \\
& \lambda X2 : \iota.\lambda X3 : \iota.\lambda X4 : \iota.k3_xtuple_0 X1 k1_xboole_0 \\
& (k11_finseq_1 X2 X3 X4))) \wedge (\neg(k4_xtuple_0 X0 \neq np_4) \wedge ((k4_xtuple_0 \\
& X0 \neq np_5) \wedge ((k4_xtuple_0 X0 \neq np_6) \wedge ((k4_xtuple_0 X0 \neq np_7) \wedge \\
& (k4_xtuple_0 X0 \neq np_8)))))) \wedge (\neg(X0 \in ReplSep5 (toset (\lambda X1 : \\
& \iota.m2_subset_1 X1 k4_ordinal1 (k7_card_1 np_15))) (\lambda X1 : \\
& \iota.toset (\lambda X2 : \iota.m1_subset_1 X2 k2_scm_inst)) (\lambda X1 : \\
& \iota.\lambda X2 : \iota.toset (\lambda X3 : \iota.m1_subset_1 X3 k2_scm_inst)) \\
& (\lambda X1 : \iota.\lambda X2 : \iota.\lambda X3 : \iota.toset (\lambda X4 : \iota.m1_subset_1 \\
& X4 k4_numbers)) (\lambda X1 : \iota.\lambda X2 : \iota.\lambda X3 : \iota.\lambda X4 : \\
& \iota.toset (\lambda X5 : \iota.m1_subset_1 X5 k4_numbers)) (\lambda X1 : \iota. \\
& \lambda X2 : \iota.\lambda X3 : \iota.\lambda X4 : \iota.\lambda X5 : \iota.X1 \in k3_enumset1 \\
& np_9 np_10 np_11 np_12 np_13) (\lambda X1 : \iota.\lambda X2 : \iota.\lambda X3 : \\
& \iota.\lambda X4 : \iota.\lambda X5 : \iota.k3_xtuple_0 X1 k1_xboole_0 (k7_finseq_4 \\
& X2 X3 X4 X5))) \wedge (\neg(k4_xtuple_0 X0 \neq np_9) \wedge ((k4_xtuple_0 X0 \neq np_10) \wedge \\
& ((k4_xtuple_0 X0 \neq np_11) \wedge ((k4_xtuple_0 X0 \neq np_12) \wedge (k4_xtuple_0 \\
& X0 \neq np_13)))))))))
\end{aligned} \tag{1}$$

Assume the following.

$$\neg v1_xboole_0 np_3 \tag{2}$$

Assume the following.

$$\neg v1_xboole_0 np_2 \tag{3}$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.(((\neg v1_xboole_0 X0)\wedge(v1_compos_0 X0))\wedge (m1_subset_1 X1 X0))\Rightarrow(k2_compos_0 X0 X1 = k4_xtuple_0 X1) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.k5_xtuple_0 (k3_xtuple_0 X0 X1 X2) = X1 \quad (6)$$

Assume the following.

$$v1_compos_0 k1_scmpds_i \quad (7)$$

Assume the following.

$$v1_xboole_0 k1_xboole_0 \quad (8)$$

Assume the following.

$$\neg v1_xboole_0 k1_scmpds_i \quad (9)$$

Theorem 1

$$\forall X0.(m1_subset_1 X0 k1_scmpds_i)\Rightarrow(((k2_compos_0 k1_scmpds_i X0 = np_2)\vee(k2_compos_0 k1_scmpds_i X0 = np_3))\Rightarrow(k5_xtuple_0 X0 = k1_xboole_0))$$