

t11_scmringi
(TMUD1beFj2DNsEK8uTdgxexMaHvaeU3mqmW)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_scm_inst : \iota$ be given. Let $k5_numbers : \iota$ be given. Let $k3_xtuple_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_7 : \iota$ be given. Let $k12_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_scmringi : \iota \Rightarrow \iota$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k1_xboole_0 : \iota$ 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 $k2_finseq_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_enumset1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $np_2 : \iota$ be given. Let $np_3 : \iota$ be given. Let $np_4 : \iota$ be given. Let $np_6 : \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $np_5 : \iota$ be given. Let $k10_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} \forall X0. \forall X1. \forall X2. (X2 = k2_xboole_0 X0 X1) \Leftrightarrow (\forall X3. \\ (X3 \in X2) \Leftrightarrow ((X3 \in X0) \vee (X3 \in X1))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge (l1_struct_0 X0)) \Rightarrow (k1_scmringi \\
& X0 = k2_xboole_0 (k2_xboole_0 (k2_xboole_0 (k2_xboole_0 (k1_tarSKI \\
& (k3_xtuple_0 k6_numbers k1_xboole_0 k1_xboole_0)) (ReplSep3 \\
& (toset (\lambda X1 : \iota.m2_subset_1 X1 k4_ordinal1 (k7_card_1 np_8))) \\
& (\lambda X1 : \iota.toset (\lambda X2 : \iota.m1_subset_1 X2 k2_scm_inst)) \\
& (\lambda X1 : \iota.\lambda X2 : \iota.toset (\lambda X3 : \iota.m1_subset_1 X3 k2_scm_inst)) \\
& (\lambda X1 : \iota.\lambda X2 : \iota.\lambda X3 : \iota.X1 \in k2_enumset1 np_1 np_2 \\
& np_3 np_4) (\lambda X1 : \iota.\lambda X2 : \iota.\lambda X3 : \iota.k3_xtuple_0 \\
& X1 k1_xboole_0 (k2_finseq_4 k2_scm_inst X2 X3))) (ReplSep (toset \\
& (\lambda X1 : \iota.m1_subset_1 X1 k5_numbers)) (\lambda X1 : \iota.True) (\\
& \lambda X1 : \iota.k3_xtuple_0 np_6 (k12_finseq_1 k5_numbers X1) k1_xboole_0))) \\
& (ReplSep2 (toset (\lambda X1 : \iota.m1_subset_1 X1 k5_numbers)) (\lambda X1 : \\
& \iota.toset (\lambda X2 : \iota.m1_subset_1 X2 k2_scm_inst)) (\lambda X1 : \\
& \iota.\lambda X2 : \iota.True) (\lambda X1 : \iota.\lambda X2 : \iota.k3_xtuple_0 np_7 \\
& (k12_finseq_1 k5_numbers X1) (k12_finseq_1 k2_scm_inst X2)))) \\
& (ReplSep2 (toset (\lambda X1 : \iota.m1_subset_1 X1 k2_scm_inst)) (\lambda X1 : \\
& \iota.toset (\lambda X2 : \iota.m1_subset_1 X2 (u1_struct_0 X0))) (\lambda X1 : \\
& \iota.\lambda X2 : \iota.True) (\lambda X1 : \iota.\lambda X2 : \iota.k3_xtuple_0 np_5 \\
& k1_xboole_0 (k10_finseq_1 X1 X2))))
\end{aligned} \tag{2}$$

Assume the following.

$$\forall X0. \forall X1. k2_xboole_0 X0 X1 = k2_xboole_0 X1 X0 \tag{3}$$

Theorem 1

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge (l1_struct_0 X0)) \Rightarrow (\forall X1. \\
& (m1_subset_1 X1 k2_scm_inst) \Rightarrow (\forall X2.(m1_subset_1 X2 k5_numbers) \Rightarrow \\
& (k3_xtuple_0 np_7 (k12_finseq_1 k5_numbers X2) (k12_finseq_1 \\
& k2_scm_inst X1) \in k1_scmringi X0)))
\end{aligned}$$