

t2_scmpds_i (TM-
Japw9zP8WdKwmu32tfAi23DBpw2qyK6uU)

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Let $k3_xtuple_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_14 : \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k12_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_numbers : \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k1_scmpds_i : \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k5_finseq_1 : \iota \Rightarrow \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $k4_numbers : \iota$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_int_1 : \iota \Rightarrow o$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ 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 $k7_card_1 : \iota \Rightarrow \iota$ be given. Let $np_15 : \iota$ be given. Let $k10_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_2 : \iota$ be given. Let $np_3 : \iota$ be given. Let $k11_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_enumset1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ 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 $v7_ordinal1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. (X0 \in X1) \Rightarrow (m1_subset_1 X0 X1) \quad (1)$$

Assume the following.

$$m1_subset_1 k1_xboole_0 k4_ordinal1 \quad (2)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (3)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. ((\neg v1_xboole_0 X0) \wedge (m1_subset_1 X1 X0)) \Rightarrow (k12_finseq_1 X0 X1 = k5_finseq_1 X1) \quad (5)$$

Assume the following.

$$(\neg v1_xboole_0\ k4_ordinal1) \wedge (v3_ordinal1\ k4_ordinal1) \quad (6)$$

Assume the following.

$$\neg v1_xboole_0\ k4_numbers \quad (7)$$

Assume the following.

$$v1_xboole_0\ k1_xboole_0 \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(X2 = k2_xboole_0\ X0\ X1) \Leftrightarrow (\forall X3. (X3 \in X2) \Leftrightarrow ((X3 \in X0) \vee (X3 \in X1))) \quad (9)$$

Assume the following.

$$\forall X0.(v1_int_1\ X0) \Leftrightarrow (X0 \in k4_numbers) \quad (10)$$

Assume the following.

$$\begin{aligned}
& k1_scmpds_i = k2_xboole_0 (k2_xboole_0 (k2_xboole_0 (k2_xboole_0 \\
& \quad (k2_xboole_0 (k1_tarski (k3_xtuple_0 k6_numbers k1_xboole_0 \\
& k1_xboole_0)) (ReplSep (toset (\lambda X0 : \iota.m1_subset_1 X0 k4_numbers)) \\
& \quad (\lambda X0 : \iota.True) (\lambda X0 : \iota.k3_xtuple_0 np_14 k1_xboole_0 \\
& \quad (k12_finseq_1 k4_numbers X0)))) (ReplSep (toset (\lambda X0 : \iota. \\
& \quad m1_subset_1 X0 k2_scm_inst)) (\lambda X0 : \iota.True) (\lambda X0 : \iota. \\
& k3_xtuple_0 np_1 k1_xboole_0 (k12_finseq_1 k2_scm_inst X0)))) \\
& (ReplSep3 (toset (\lambda X0 : \iota.m2_subset_1 X0 k4_ordinal1 (k7_card_1 \\
& np_15))) (\lambda X0 : \iota.toset (\lambda X1 : \iota.m1_subset_1 X1 k2_scm_inst)) \\
& \quad (\lambda X0 : \iota.\lambda X1 : \iota.toset (\lambda X2 : \iota.m1_subset_1 X2 k4_numbers)) \\
& \quad (\lambda X0 : \iota.\lambda X1 : \iota.\lambda X2 : \iota.X0 \in k2_tarski np_2 np_3) \\
& \quad (\lambda X0 : \iota.\lambda X1 : \iota.\lambda X2 : \iota.k3_xtuple_0 X0 k1_xboole_0 \\
& (k10_finseq_1 X1 X2)))) (ReplSep4 (toset (\lambda X0 : \iota.m2_subset_1 \\
& X0 k4_ordinal1 (k7_card_1 np_15))) (\lambda X0 : \iota.toset (\lambda X1 : \\
& \iota.m1_subset_1 X1 k2_scm_inst)) (\lambda X0 : \iota.\lambda X1 : \iota.toset \\
& (\lambda X2 : \iota.m1_subset_1 X2 k4_numbers)) (\lambda X0 : \iota.\lambda X1 : \\
& \iota.\lambda X2 : \iota.toset (\lambda X3 : \iota.m1_subset_1 X3 k4_numbers)) \\
& \quad (\lambda X0 : \iota.\lambda X1 : \iota.\lambda X2 : \iota.\lambda X3 : \iota.X0 \in k3_enumset1 \\
& np_4 np_5 np_6 np_7 np_8) (\lambda X0 : \iota.\lambda X1 : \iota.\lambda X2 : \\
& \iota.\lambda X3 : \iota.k3_xtuple_0 X0 k1_xboole_0 (k11_finseq_1 X1 X2 \\
& X3)))) (ReplSep5 (toset (\lambda X0 : \iota.m2_subset_1 X0 k4_ordinal1 \\
& (k7_card_1 np_15))) (\lambda X0 : \iota.toset (\lambda X1 : \iota.m1_subset_1 \\
& X1 k2_scm_inst)) (\lambda X0 : \iota.\lambda X1 : \iota.toset (\lambda X2 : \iota. \\
& m1_subset_1 X2 k2_scm_inst)) (\lambda X0 : \iota.\lambda X1 : \iota.\lambda X2 : \\
& \iota.toset (\lambda X3 : \iota.m1_subset_1 X3 k4_numbers)) (\lambda X0 : \iota. \\
& \lambda X1 : \iota.\lambda X2 : \iota.\lambda X3 : \iota.toset (\lambda X4 : \iota.m1_subset_1 \\
& X4 k4_numbers)) (\lambda X0 : \iota.\lambda X1 : \iota.\lambda X2 : \iota.\lambda X3 : \\
& \iota.\lambda X4 : \iota.X0 \in k3_enumset1 np_9 np_10 np_11 np_12 np_13) \\
& \quad (\lambda X0 : \iota.\lambda X1 : \iota.\lambda X2 : \iota.\lambda X3 : \iota.\lambda X4 : \iota. \\
& k3_xtuple_0 X0 k1_xboole_0 (k7_finseq_4 X1 X2 X3 X4)))
\end{aligned} \tag{11}$$

Assume the following.

$$\forall X0.\forall X1.k2_xboole_0 X0 X1 = k2_xboole_0 X1 X0 \tag{12}$$

Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (v7_ordinal1 X0) \tag{13}$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (v1_int_1 X0) \tag{14}$$

Theorem 1

$$k3_xtuple_0 np_14 k1_xboole_0 (k12_finseq_1 k5_numbers k6_numbers) \in k1_scmpds_i$$