

t7_scmfsa.i (TMHcEJXgrfbGgFtMAhLap- sHmy2dieDTG3Rd)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_scmfsa_i : \iota$ be given. Let $k3_scm_inst : \iota$ be given. Let $k2_compos_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ 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 $np_5 : \iota$ be given. Let $np_6 : \iota$ be given. Let $np_7 : \iota$ be given. Let $np_8 : \iota$ 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 $np_13 : \iota$ be given. Let $k2_scm_inst : \iota$ be given. Let $k1_scmfsa_i : \iota$ be given. Let $k3_xtuple_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k11_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_9 : \iota$ be given. Let $np_10 : \iota$ be given. Let $k10_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_11 : \iota$ be given. Let $np_12 : \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_compos_0 : \iota \Rightarrow o$ be given. Let $k4_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} \forall X0.(v7_ordinal1\ X0) \Rightarrow & (\neg(r1_xxreal_0\ X0\ np_8) \wedge ((X0 \neq k6_numbers) \wedge \\ & ((X0 \neq np_1) \wedge ((X0 \neq np_2) \wedge ((X0 \neq np_3) \wedge ((X0 \neq np_4) \wedge ((X0 \neq np_5) \wedge \\ & ((X0 \neq np_6) \wedge ((X0 \neq np_7) \wedge (X0 \neq np_8)))))))))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.(m1_subset_1\ X0\ X1) \Rightarrow ((v1_xboole_0\ X1) \vee (X0 \in X1)) \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.(X0 \in X1) \Rightarrow (m1_subset_1\ X0\ X1) \quad (3)$$

Assume the following.

$$\forall X0.(m1_subset_1\ X0\ k3_scm_inst) \Rightarrow (r1_xxreal_0\ (k2_compos_0\ k3_scm_inst\ X0)\ np_8) \quad (4)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.(((\neg v1_xboole_0 X0)\wedge(v1_compos_0 X0))\wedge(m1_subset_1 X1 X0))\Rightarrow(k2_compos_0 X0 X1 = k4_xtuple_0 X1) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.k4_xtuple_0 (k3_xtuple_0 X0 X1 X2) = X0 \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.(((\neg v1_xboole_0 X0)\wedge(v1_compos_0 X0))\wedge(m1_subset_1 X1 X0))\Rightarrow(v7_ordinal1 (k4_xtuple_0 X1)) \quad (8)$$

Assume the following.

$$(\neg v1_xboole_0 k3_scm_inst)\wedge(v1_compos_0 k3_scm_inst) \quad (9)$$

Assume the following.

$$(\neg v1_xboole_0 k2_scmfsa_i)\wedge(v1_compos_0 k2_scmfsa_i) \quad (10)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(X2 = k2_xboole_0 X0 X1)\Leftrightarrow(\forall X3.(X3 \in X2)\Leftrightarrow((X3 \in X0)\vee(X3 \in X1))) \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(X2 = k2_tarSKI X0 X1)\Leftrightarrow(\forall X3.(X3 \in X2)\Leftrightarrow((X3 = X0)\vee(X3 = X1))) \quad (12)$$

Assume the following.

$$\begin{aligned} & k2_scmfsa_i = k2_xboole_0 (k2_xboole_0 k3_scm_inst (ReplSep4 \\ & (toset (\lambda X0 : \iota.m2_subset_1 X0 k4_ordinal1 (k7_card_1 np_13)))) \\ & (\lambda X0 : \iota.toset (\lambda X1 : \iota.m1_subset_1 X1 k2_scm_inst)) \\ & (\lambda X0 : \iota.\lambda X1 : \iota.toset (\lambda X2 : \iota.m1_subset_1 X2 k2_scm_inst)) \\ & (\lambda X0 : \iota.\lambda X1 : \iota.\lambda X2 : \iota.toset (\lambda X3 : \iota.m1_subset_1 \\ & X3 k1_scmfsa_i)) (\lambda X0 : \iota.\lambda X1 : \iota.\lambda X2 : \iota.\lambda X3 : \\ & \iota.X0 \in k2_tarSKI np_9 np_10) (\lambda X0 : \iota.\lambda X1 : \iota.\lambda X2 : \\ & \iota.\lambda X3 : \iota.k3_xtuple_0 X0 k1_xboole_0 (k11_finseq_1 X1 X3 \\ & X2)))) (ReplSep3 (toset (\lambda X0 : \iota.m2_subset_1 X0 k4_ordinal1 \\ & (k7_card_1 np_13)))) (\lambda X0 : \iota.toset (\lambda X1 : \iota.m1_subset_1 \\ & X1 k2_scm_inst)) (\lambda X0 : \iota.\lambda X1 : \iota.toset (\lambda X2 : \iota. \\ & m1_subset_1 X2 k1_scmfsa_i)) (\lambda X0 : \iota.\lambda X1 : \iota.\lambda X2 : \iota. \\ & \iota.X0 \in k2_tarSKI np_11 np_12) (\lambda X0 : \iota.\lambda X1 : \iota.\lambda X2 : \\ & \iota.k3_xtuple_0 X0 k1_xboole_0 (k10_finseq_1 X1 X2))) \end{aligned} \quad (13)$$

Theorem 1

$$\begin{aligned}
& \forall X0.(m1_subset_1 X0 k2_scmfsa_i) \Rightarrow (\neg(\neg(X0 \in k3_scm_inst) \wedge \\
& (\neg(k2_compos_0 k2_scmfsa_i X0 \neq k6_numbers) \wedge ((k2_compos_0 k2_scmfsa_i \\
& X0 \neq np_1) \wedge ((k2_compos_0 k2_scmfsa_i X0 \neq np_2) \wedge ((k2_compos_0 \\
& k2_scmfsa_i X0 \neq np_3) \wedge ((k2_compos_0 k2_scmfsa_i X0 \neq np_4) \wedge \\
& ((k2_compos_0 k2_scmfsa_i X0 \neq np_5) \wedge ((k2_compos_0 k2_scmfsa_i \\
& X0 \neq np_6) \wedge ((k2_compos_0 k2_scmfsa_i X0 \neq np_7) \wedge (k2_compos_0 \\
& k2_scmfsa_i X0 \neq np_8)))))))))) \wedge (\neg(X0 \in ReplSep4 (toiset (\lambda X1 : \\
& \iota.m2_subset_1 X1 k4_ordinal1 (k7_card_1 np_13))) (\lambda X1 : \\
& \iota.toiset (\lambda X2 : \iota.m1_subset_1 X2 k2_scm_inst)) (\lambda X1 : \\
& \iota.\lambda X2 : \iota.toiset (\lambda X3 : \iota.m1_subset_1 X3 k2_scm_inst)) \\
& (\lambda X1 : \iota.\lambda X2 : \iota.\lambda X3 : \iota.toiset (\lambda X4 : \iota.m1_subset_1 \\
& X4 k1_scmfsa_i)) (\lambda X1 : \iota.\lambda X2 : \iota.\lambda X3 : \iota.\lambda X4 : \\
& \iota.X1 \in k2_tarski np_9 np_10) (\lambda X1 : \iota.\lambda X2 : \iota.\lambda X3 : \\
& \iota.\lambda X4 : \iota.k3_xtuple_0 X1 k1_xboole_0 (k11_finseq_1 X2 X4 \\
& X3))) \wedge ((k2_compos_0 k2_scmfsa_i X0 = np_9) \vee (k2_compos_0 k2_scmfsa_i \\
& X0 = np_10))) \wedge (\neg(X0 \in ReplSep3 (toiset (\lambda X1 : \iota.m2_subset_1 \\
& X1 k4_ordinal1 (k7_card_1 np_13))) (\lambda X1 : \iota.toiset (\lambda X2 : \\
& \iota.m1_subset_1 X2 k2_scm_inst)) (\lambda X1 : \iota.\lambda X2 : \iota.toiset \\
& (\lambda X3 : \iota.m1_subset_1 X3 k1_scmfsa_i)) (\lambda X1 : \iota.\lambda X2 : \\
& \iota.\lambda X3 : \iota.X1 \in k2_tarski np_11 np_12) (\lambda X1 : \iota.\lambda X2 : \\
& \iota.\lambda X3 : \iota.k3_xtuple_0 X1 k1_xboole_0 (k10_finseq_1 X2 X3))) \wedge \\
& ((k2_compos_0 k2_scmfsa_i X0 = np_11) \vee (k2_compos_0 k2_scmfsa_i \\
& X0 = np_12))))))
\end{aligned}$$