

l60_scmpds_2 (TML- bkkQjqgG5aPiFRnKRxWXkE298vPhTiUH)

October 27, 2020

Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_compos_1 : \iota \Rightarrow \iota$ be given. Let $k1_scmpds_2 : \iota$ 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 $k1_xboole_0 : \iota$ be given. Let $k4_numbers : \iota$ be given. Let $np_14 : \iota$ be given. Let $k9_finseq_1 : \iota \Rightarrow \iota$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_ami_2 : \iota$ be given. Let $k2_ami_2 : \iota$ be given. Let $np_1 : \iota$ be given. Let $k12_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_card_1 : \iota \Rightarrow \iota$ be given. Let $np_15 : \iota$ be given. Let $k3_scmpds_1 : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $k2_compos_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} \forall X0.(m1_subset_1 X0 (u1_compos_1 k1_scmpds_2)) \Rightarrow ((X0 \in \\ k1_tarski (k3_xtuple_0 k6_numbers k1_xboole_0 k1_xboole_0)) \Rightarrow \\ (k2_compos_0 (u1_compos_1 k1_scmpds_2) X0 = k6_numbers)) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.(m1_subset_1 X0 (u1_compos_1 k1_scmpds_2)) \Rightarrow (\neg (X0 \in \\ ReplSep4 (toset (\lambda X1 : \iota.m1_subset_1 X1 (k7_card_1 np_15))) \\ (\lambda X1 : \iota.toset (\lambda X2 : \iota.m2_subset_1 X2 k1_ami_2 k2_ami_2)) \\ (\lambda X1 : \iota.\lambda X2 : \iota.toset (\lambda X3 : \iota.m1_subset_1 X3 k4_numbers)) \\ (\lambda X1 : \iota.\lambda X2 : \iota.\lambda X3 : \iota.toset (\lambda X4 : \iota.m1_subset_1 \\ X4 k4_numbers)) (\lambda X1 : \iota.\lambda X2 : \iota.\lambda X3 : \iota.\lambda X4 : \\ \iota.X1 \in k3_enumset1 np_4 np_5 np_6 np_7 np_8) (\lambda X1 : \iota. \\ \lambda X2 : \iota.\lambda X3 : \iota.\lambda X4 : \iota.k3_xtuple_0 X1 k1_xboole_0 \\ (k11_finseq_1 X2 X3 X4))) \wedge ((k2_compos_0 (u1_compos_1 k1_scmpds_2) \\ X0 \neq np_4) \wedge ((k2_compos_0 (u1_compos_1 k1_scmpds_2) X0 \neq np_5) \wedge \\ ((k2_compos_0 (u1_compos_1 k1_scmpds_2) X0 \neq np_6) \wedge ((k2_compos_0 \\ (u1_compos_1 k1_scmpds_2) X0 \neq np_7) \wedge (k2_compos_0 (u1_compos_1 \\ k1_scmpds_2) X0 \neq np_8)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned}
& \forall X0.(m1_subset_1 X0 (u1_compos_1 k1_scmpds_2)) \Rightarrow (\neg (X0 \in \\
& \text{ReplSep3 } (toset (\lambda X1 : \iota.m1_subset_1 X1 (k7_card_1 np_15))) \\
& (\lambda X1 : \iota.toset (\lambda X2 : \iota.m2_subset_1 X2 k1_ami_2 k2_ami_2)) \\
& (\lambda X1 : \iota.\lambda X2 : \iota.toset (\lambda X3 : \iota.m1_subset_1 X3 k4_numbers)) \\
& (\lambda X1 : \iota.\lambda X2 : \iota.\lambda X3 : \iota.X1 \in k2_tarski np_2 np_3) \\
& (\lambda X1 : \iota.\lambda X2 : \iota.\lambda X3 : \iota.k3_xtuple_0 X1 k1_xboole_0 \\
& (k3_scmpds_1 X2 X3))) \wedge ((k2_compos_0 (u1_compos_1 k1_scmpds_2) \\
& X0 \neq np_2) \wedge (k2_compos_0 (u1_compos_1 k1_scmpds_2) X0 \neq np_3)))
\end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(m1_subset_1 X0 (u1_compos_1 k1_scmpds_2)) \Rightarrow ((X0 \in \\
& \text{ReplSep } (toset (\lambda X1 : \iota.m2_subset_1 X1 k1_ami_2 k2_ami_2)) \\
& (\lambda X1 : \iota.True) (\lambda X1 : \iota.k3_xtuple_0 np_1 k1_xboole_0 \\
& (k12_finseq_1 k2_ami_2 X1))) \Rightarrow (k2_compos_0 (u1_compos_1 k1_scmpds_2) \\
& X0 = np_1))
\end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(m1_subset_1 X0 (u1_compos_1 k1_scmpds_2)) \Rightarrow ((X0 \in \\
& \text{ReplSep } (toset (\lambda X1 : \iota.m1_subset_1 X1 k4_numbers)) (\lambda X1 : \\
& \iota.True) (\lambda X1 : \iota.k3_xtuple_0 np_14 k1_xboole_0 (k9_finseq_1 \\
& X1))) \Rightarrow (k2_compos_0 (u1_compos_1 k1_scmpds_2) X0 = np_14))
\end{aligned} \tag{5}$$

Theorem 1

$$\begin{aligned}
& \forall X0.(m1_subset_1 X0 (u1_compos_1 k1_scmpds_2)) \Rightarrow (\neg(\neg(\\
& \neg X0 \in k1_tarski (k3_xtuple_0 k6_numbers k1_xboole_0 k1_xboole_0)) \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 \\
& (k9_finseq_1 X1))) \wedge (\neg X0 \in ReplSep (toset (\lambda X1 : \iota.m2_subset_1 \\
& X1 k1_ami_2 k2_ami_2)) (\lambda X1 : \iota.True) (\lambda X1 : \iota.k3_xtuple_0 \\
& np_1 k1_xboole_0 (k12_finseq_1 k2_ami_2 X1))) \wedge (\neg X0 \in ReplSep3 \\
& (toset (\lambda X1 : \iota.m1_subset_1 X1 (k7_card_1 np_15))) (\lambda X1 : \\
& \iota.toset (\lambda X2 : \iota.m2_subset_1 X2 k1_ami_2 k2_ami_2)) (\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 \\
& (k3_scmpds_1 X2 X3))) \wedge (\neg X0 \in ReplSep4 (toset (\lambda X1 : \iota.m1_subset_1 \\
& X1 (k7_card_1 np_15))) (\lambda X1 : \iota.toset (\lambda X2 : \iota.m2_subset_1 \\
& X2 k1_ami_2 k2_ami_2)) (\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 \\
& ((k2_compos_0 (u1_compos_1 k1_scmpds_2) X0 \neq k6_numbers) \wedge ((k2_compos_0 \\
& (u1_compos_1 k1_scmpds_2) X0 \neq np_14) \wedge ((k2_compos_0 (u1_compos_1 \\
& k1_scmpds_2) X0 \neq np_1) \wedge ((k2_compos_0 (u1_compos_1 k1_scmpds_2) \\
& X0 \neq np_2) \wedge ((k2_compos_0 (u1_compos_1 k1_scmpds_2) X0 \neq np_3) \wedge \\
& ((k2_compos_0 (u1_compos_1 k1_scmpds_2) X0 \neq np_4) \wedge ((k2_compos_0 \\
& (u1_compos_1 k1_scmpds_2) X0 \neq np_5) \wedge ((k2_compos_0 (u1_compos_1 \\
& k1_scmpds_2) X0 \neq np_6) \wedge ((k2_compos_0 (u1_compos_1 k1_scmpds_2) \\
& X0 \neq np_7) \wedge (k2_compos_0 (u1_compos_1 k1_scmpds_2) X0 \neq np_8))))))))))
\end{aligned}$$