

t118_aofa_000

(TMaLzjA8VgnKwN3i5RUeBoPXeejA4Rwiawp)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v2_unialg_1 : \iota \Rightarrow o$ be given. Let $v3_unialg_1 : \iota \Rightarrow o$ be given. Let $v4_unialg_1 : \iota \Rightarrow o$ be given. Let $v3_aofa_000 : \iota \Rightarrow o$ be given. Let $v4_aofa_000 : \iota \Rightarrow o$ be given. Let $v5_aofa_000 : \iota \Rightarrow o$ be given. Let $v6_aofa_000 : \iota \Rightarrow o$ be given. Let $l1_unialg_1 : \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $m1_aofa_000 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $r5_aofa_000 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r6_aofa_000 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r7_aofa_000 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_binop_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r4_aofa_000 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k13_aofa_000 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k16_aofa_000 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k21_aofa_000 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
& \forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_unialg_1 X0) \wedge ((v3_unialg_1 X0) \wedge ((v4_unialg_1 X0) \wedge ((v3_aofa_000 X0) \wedge ((v4_aofa_000 X0) \wedge ((v5_aofa_000 X0) \wedge ((v6_aofa_000 X0) \wedge (l1_unialg_1 X0)))))))))) \Rightarrow \\
& (\forall X1. (\neg v1_xboole_0 X1) \Rightarrow (\forall X2. (m1_subset_1 X2 (k1_zfmisc_1 X1)) \Rightarrow (\forall X3. (m1_subset_1 X3 X1) \Rightarrow (\forall X4. (m1_aofa_000 X4 X0 X1 X2) \Rightarrow (\forall X5. \forall X6. (m1_subset_1 X6 (u1_struct_0 X0)) \Rightarrow (\forall X7. (m1_subset_1 X7 (u1_struct_0 X0)) \Rightarrow (((r5_aofa_000 X0 X1 X2 X6 X4) \wedge ((r6_aofa_000 X0 X1 X2 X7 X4 X5) \wedge ((r7_aofa_000 X0 X1 X2 X6 X4 X5) \wedge ((\forall X8. (m1_subset_1 X8 X1) \Rightarrow (((X8 \in X5) \wedge (k2_binop_1 X1 (u1_struct_0 X0) X1 X4 (k2_binop_1 X1 (u1_struct_0 X0) X1 X4 X8 X7) X6 \in X2)) \Rightarrow (k2_binop_1 X1 (u1_struct_0 X0) X1 X4 X8 X7 \in X5)))))) \wedge ((r4_aofa_000 X0 (k13_aofa_000 X0 X7 X6) X1 (k2_binop_1 X1 (u1_struct_0 X0) X1 X4 X3 X6) X2 X4) \wedge (X3 \in X5)))))) \Rightarrow (k4_tarski X3 (k16_aofa_000 X0 X6 X7) \in k21_aofa_000 X0 X1 X2 X4)))))))))
\end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. \forall X2. (((v4_unialg_1 X0) \wedge ((v6_aofa_000 X0) \wedge (l1_unialg_1 X0))) \wedge ((m1_subset_1 X1 (u1_struct_0 X0)) \wedge (m1_subset_1 X2 (u1_struct_0 X0)))) \Rightarrow (m1_subset_1 (k16_aofa_000 X0 X1 X2) (u1_struct_0 X0))
\end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_unialg_1 X0) \wedge ((v3_unialg_1 \\
& X0) \wedge ((v4_unialg_1 X0) \wedge ((v3_aofa_000 X0) \wedge ((v4_aofa_000 X0) \wedge \\
& ((v5_aofa_000 X0) \wedge ((v6_aofa_000 X0) \wedge (l1_unialg_1 X0)))))))))) \Rightarrow \\
& (\forall X1.(\neg v1_xboole_0 X1) \Rightarrow (\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 \\
& X1)) \Rightarrow (\forall X3.(m1_subset_1 X3 (u1_struct_0 X0)) \Rightarrow (\forall X4. \\
& (m1_aofa_000 X4 X0 X1 X2) \Rightarrow (\forall X5.(r7_aofa_000 X0 X1 X2 X3 X4 \\
& X5) \Leftrightarrow (\forall X6.(m1_subset_1 X6 X1) \Rightarrow ((X6 \in X5) \Rightarrow (k2_binop_1 X1 \\
& (u1_struct_0 X0) X1 X4 X6 X3 \in X5))))))))))
\end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_unialg_1 X0) \wedge ((v3_unialg_1 \\
& X0) \wedge ((v4_unialg_1 X0) \wedge ((v3_aofa_000 X0) \wedge ((v4_aofa_000 X0) \wedge \\
& ((v5_aofa_000 X0) \wedge ((v6_aofa_000 X0) \wedge (l1_unialg_1 X0)))))))))) \Rightarrow \\
& (\forall X1.(\neg v1_xboole_0 X1) \Rightarrow (\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 \\
& X1)) \Rightarrow (\forall X3.(m1_subset_1 X3 (u1_struct_0 X0)) \Rightarrow (\forall X4. \\
& (m1_aofa_000 X4 X0 X1 X2) \Rightarrow (\forall X5.(r6_aofa_000 X0 X1 X2 X3 X4 \\
& X5) \Leftrightarrow (\forall X6.(m1_subset_1 X6 X1) \Rightarrow ((X6 \in X5) \Rightarrow (k4_tarSKI X6 X3 \in \\
& k21_aofa_000 X0 X1 X2 X4))))))))))
\end{aligned} \tag{4}$$

Theorem 1

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_unialg_1 X0) \wedge ((v3_unialg_1 \\
& X0) \wedge ((v4_unialg_1 X0) \wedge ((v3_aofa_000 X0) \wedge ((v4_aofa_000 X0) \wedge \\
& ((v5_aofa_000 X0) \wedge ((v6_aofa_000 X0) \wedge (l1_unialg_1 X0)))))))))) \Rightarrow \\
& (\forall X1.(\neg v1_xboole_0 X1) \Rightarrow (\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 \\
& X1)) \Rightarrow (\forall X3.(m1_aofa_000 X3 X0 X1 X2) \Rightarrow (\forall X4.\forall X5. \\
& (m1_subset_1 X5 (u1_struct_0 X0)) \Rightarrow (\forall X6.(m1_subset_1 X6 \\
& (u1_struct_0 X0)) \Rightarrow (((r5_aofa_000 X0 X1 X2 X5 X3) \wedge ((r6_aofa_000 \\
& X0 X1 X2 X6 X3 X4) \wedge ((r7_aofa_000 X0 X1 X2 X5 X3 X4) \wedge ((\forall X7.(m1_subset_1 \\
& X7 X1) \Rightarrow (((X7 \in X4) \wedge (k2_binop_1 X1 (u1_struct_0 X0) X1 X3 (k2_binop_1 \\
& X1 (u1_struct_0 X0) X1 X3 X7 X6) X5 \in X2)) \Rightarrow (k2_binop_1 X1 (u1_struct_0 \\
& X0) X1 X3 X7 X6 \in X4))) \wedge (\forall X7.(m1_subset_1 X7 X1) \Rightarrow ((k2_binop_1 \\
& X1 (u1_struct_0 X0) X1 X3 X7 X5 \in X4) \Rightarrow (r4_aofa_000 X0 (k13_aofa_000 \\
& X0 X6 X5) X1 (k2_binop_1 X1 (u1_struct_0 X0) X1 X3 X7 X5) X2 X3)))))) \Rightarrow \\
& (r6_aofa_000 X0 X1 X2 (k16_aofa_000 X0 X5 X6) X3 X4))))))
\end{aligned}$$