

t107_aofa_000 (TMK-
wgQAF LpV2gF46Rw6zX6WZhqwF5ttWyfQ)

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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 $m1_aofa_000 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v15_aofa_000 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $r6_aofa_000 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r5_aofa_000 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_unialg_1 X0) \wedge ((v3_unialg_1 \\
 & X0) \wedge ((v4_unialg_1 X0) \wedge ((v3_aofa_000 X0) \wedge ((v4_aofa_000 X0) \wedge \\
 & ((v5_aofa_000 X0) \wedge ((v6_aofa_000 X0) \wedge (l1_unialg_1 X0)))))))))) \Rightarrow \\
 & (\forall X1. (\neg v1_xboole_0 X1) \Rightarrow (\forall X2. (m1_subset_1 X2 (k1_zfmisc_1 \\
 & X1)) \Rightarrow (\forall X3. (m1_aofa_000 X3 X0 X1 X2) \Rightarrow (\forall X4. (m1_subset_1 \\
 & X4 (u1_struct_0 X0)) \Rightarrow ((r5_aofa_000 X0 X1 X2 X4 X3) \Rightarrow (\forall X5. \\
 & r6_aofa_000 X0 X1 X2 X4 X3 X5))))))
 \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
 & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_unialg_1 X0) \wedge ((v3_unialg_1 \\
 & X0) \wedge ((v4_unialg_1 X0) \wedge ((v3_aofa_000 X0) \wedge ((v4_aofa_000 X0) \wedge \\
 & ((v5_aofa_000 X0) \wedge ((v6_aofa_000 X0) \wedge (l1_unialg_1 X0)))))))))) \Rightarrow \\
 & (\forall X1. (\neg v1_xboole_0 X1) \Rightarrow (\forall X2. (m1_subset_1 X2 (k1_zfmisc_1 \\
 & X1)) \Rightarrow (\forall X3. (m1_aofa_000 X3 X0 X1 X2) \Rightarrow (\forall X4. ((v15_aofa_000 \\
 & X4 X0) \wedge (m1_subset_1 X4 (u1_struct_0 X0)) \Rightarrow (r5_aofa_000 X0 X1 X2 \\
 & X4 X3))))))
 \end{aligned} \tag{2}$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge (v2_unialg_1 X0) \wedge ((v3_unialg_1 \\ & X0) \wedge ((v4_unialg_1 X0) \wedge ((v3_aofa_000 X0) \wedge ((v4_aofa_000 X0) \wedge \\ & ((v5_aofa_000 X0) \wedge ((v6_aofa_000 X0) \wedge (l1_unialg_1 X0))))))) \Rightarrow \\ & (\forall X1.(\neg v1_xboole_0 X1) \Rightarrow (\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 \\ & X1) \Rightarrow (\forall X3.(m1_aofa_000 X3 X0 X1 X2) \Rightarrow (\forall X4.((v15_aofa_000 \\ & X4 X0) \wedge (m1_subset_1 X4 (u1_struct_0 X0)) \Rightarrow (\forall X5.r6_aofa_000 \\ & X0 X1 X2 X4 X3 X5)))))) \end{aligned}$$