

t35_tmap_1
(TMLHgDATYzoH6gBikTqoEZ9pjrjG2NovF6s)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v2_pre_topc : \iota \Rightarrow o$ be given. Let $l1_pre_topc : \iota \Rightarrow o$ be given. Let $m1_pre_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_tsep_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_tsep_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc \\
& X0))) \Rightarrow (\forall X1.((\neg v2_struct_0 X1) \wedge (m1_pre_topc X1 X0)) \Rightarrow (\\
& \forall X2.((\neg v2_struct_0 X2) \wedge (m1_pre_topc X2 X0)) \Rightarrow (\forall X3. \\
& ((\neg v2_struct_0 X3) \wedge (m1_pre_topc X3 X0)) \Rightarrow ((\neg(\neg r1_tsep_1 (k1_tsep_1 \\
& X0 X1 X2) X3) \wedge ((r1_tsep_1 X1 X3) \wedge (r1_tsep_1 X2 X3))) \wedge ((\neg(\neg(r1_tsep_1 \\
& X1 X3) \wedge (r1_tsep_1 X2 X3)) \wedge (r1_tsep_1 (k1_tsep_1 X0 X1 X2) X3)) \wedge \\
& ((\neg(\neg r1_tsep_1 X3 (k1_tsep_1 X0 X1 X2)) \wedge ((r1_tsep_1 X3 X1) \wedge (r1_tsep_1 \\
& X3 X2))) \wedge (\neg(\neg(r1_tsep_1 X3 X1) \wedge (r1_tsep_1 X3 X2)) \wedge (r1_tsep_1 \\
& X3 (k1_tsep_1 X0 X1 X2))))))))))
\end{aligned} \tag{1}$$

Theorem 1

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc \\
& X0))) \Rightarrow (\forall X1.((\neg v2_struct_0 X1) \wedge (m1_pre_topc X1 X0)) \Rightarrow (\\
& \forall X2.((\neg v2_struct_0 X2) \wedge (m1_pre_topc X2 X0)) \Rightarrow (\forall X3. \\
& ((\neg v2_struct_0 X3) \wedge (m1_pre_topc X3 X0)) \Rightarrow (((r1_tsep_1 (k1_tsep_1 \\
& X0 X1 X2) X3) \Rightarrow ((r1_tsep_1 X1 X3) \wedge (r1_tsep_1 X2 X3))) \wedge (((r1_tsep_1 \\
& X1 X3) \wedge (r1_tsep_1 X2 X3)) \Rightarrow (r1_tsep_1 (k1_tsep_1 X0 X1 X2) X3)) \wedge \\
& (((r1_tsep_1 X3 (k1_tsep_1 X0 X1 X2)) \Rightarrow ((r1_tsep_1 X3 X1) \wedge (r1_tsep_1 \\
& X3 X2))) \wedge (((r1_tsep_1 X3 X1) \wedge (r1_tsep_1 X3 X2)) \Rightarrow (r1_tsep_1 X3 \\
& (k1_tsep_1 X0 X1 X2))))))))))
\end{aligned}$$