

t37\_tmap\_1  
 (TMcARsGk3QfUdVT5JXweXos3C7dgrjryXLo)

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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  $k2\_tsep\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned}
 & \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v2\_pre\_topc X0) \wedge (l1\_pre\_topc \\
 & X0))) \Rightarrow (\forall X1.((\neg v2\_struct\_0 X1) \wedge (m1\_pre\_topc X1 X0)) \Rightarrow ( \\
 & \forall X2.((\neg v2\_struct\_0 X2) \wedge (m1\_pre\_topc X2 X0)) \Rightarrow (\forall X3. \\
 & ((\neg v2\_struct\_0 X3) \wedge (m1\_pre\_topc X3 X0)) \Rightarrow ((\neg r1\_tsep\_1 X1 X2) \Rightarrow \\
 & (((\neg r1\_tsep\_1 (k2\_tsep\_1 X0 X1 X2) X3) \Rightarrow ((\neg r1\_tsep\_1 X1 X3) \wedge (\neg r1\_tsep\_1 \\
 & X2 X3))) \wedge ((\neg r1\_tsep\_1 X3 (k2\_tsep\_1 X0 X1 X2)) \Rightarrow ((\neg r1\_tsep\_1 X3 \\
 & X1) \wedge (\neg r1\_tsep\_1 X3 X2))))))))))
 \end{aligned} \tag{1}$$

**Theorem 1**

$$\begin{aligned}
 & \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v2\_pre\_topc X0) \wedge (l1\_pre\_topc \\
 & X0))) \Rightarrow (\forall X1.((\neg v2\_struct\_0 X1) \wedge (m1\_pre\_topc X1 X0)) \Rightarrow ( \\
 & \forall X2.((\neg v2\_struct\_0 X2) \wedge (m1\_pre\_topc X2 X0)) \Rightarrow (\forall X3. \\
 & ((\neg v2\_struct\_0 X3) \wedge (m1\_pre\_topc X3 X0)) \Rightarrow ((\neg r1\_tsep\_1 X1 X2) \Rightarrow \\
 & (((r1\_tsep\_1 X1 X3) \vee (r1\_tsep\_1 X2 X3)) \Rightarrow (r1\_tsep\_1 (k2\_tsep\_1 \\
 & X0 X1 X2) X3)) \wedge (((r1\_tsep\_1 X3 X1) \vee (r1\_tsep\_1 X3 X2)) \Rightarrow (r1\_tsep\_1 \\
 & X3 (k2\_tsep\_1 X0 X1 X2))))))))))
 \end{aligned}$$