

## t43\_tex\_3

(TMUU6tiGBFuA7B2GDVFvYksvR73fnzMawwp)

October 27, 2020

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  $v3\_tex\_3 : \iota \Rightarrow \iota \Rightarrow o$  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. Let  $v1\_pre\_topc : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v2\_pre\_topc X0) \wedge (l1\_pre\_topc \\ & X0))) \Rightarrow (\forall X1.(m1\_pre\_topc X1 X0) \Rightarrow (\forall X2.(m1\_pre\_topc \\ & X2 X0) \Rightarrow (((v3\_tex\_3 X1 X0) \wedge (m1\_pre\_topc X2 X1)) \Rightarrow (v3\_tex\_3 X2 X0)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v2\_pre\_topc X0) \wedge (l1\_pre\_topc \\ & X0))) \Rightarrow (\forall X1.((\neg v2\_struct\_0 X1) \wedge (m1\_pre\_topc X1 X0)) \Rightarrow ( \\ & \forall X2.((\neg v2\_struct\_0 X2) \wedge (m1\_pre\_topc X2 X0)) \Rightarrow ((\neg r1\_tsep\_1 \\ & X1 X2) \Rightarrow ((m1\_pre\_topc (k2\_tsep\_1 X0 X1 X2) X1) \wedge (m1\_pre\_topc (k2\_tsep\_1 \\ & X0 X1 X2) X2)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (((\neg v2\_struct\_0 X0) \wedge (l1\_pre\_topc \\ & X0)) \wedge (((\neg v2\_struct\_0 X1) \wedge (m1\_pre\_topc X1 X0)) \wedge ((\neg v2\_struct\_0 \\ & X2) \wedge (m1\_pre\_topc X2 X0)))) \Rightarrow ((\neg v2\_struct\_0 (k2\_tsep\_1 X0 X1 X2)) \wedge \\ & ((v1\_pre\_topc (k2\_tsep\_1 X0 X1 X2)) \wedge (m1\_pre\_topc (k2\_tsep\_1 X0 \\ & X1 X2) X0))) \end{aligned} \quad (3)$$

### Theorem 1

$$\begin{aligned} & \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v2\_pre\_topc X0) \wedge (l1\_pre\_topc \\ & X0))) \Rightarrow (\forall X1.((\neg v2\_struct\_0 X1) \wedge (m1\_pre\_topc X1 X0)) \Rightarrow ( \\ & \forall X2.((\neg v2\_struct\_0 X2) \wedge (m1\_pre\_topc X2 X0)) \Rightarrow (\neg((v3\_tex\_3 \\ & X1 X0) \vee (v3\_tex\_3 X2 X0)) \wedge ((\neg r1\_tsep\_1 X1 X2) \wedge (\neg v3\_tex\_3 (k2\_tsep\_1 \\ & X0 X1 X2) X0)))))) \end{aligned}$$