

t65\_tex\_3

(TMLySWrzuqy2iskauwK7bRQZ1sEJ6t8YVEU)

October 27, 2020

Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v2\_pre\_topc : \iota \Rightarrow o$  be given. Let  $v3\_tdlat\_3 : \iota \Rightarrow o$  be given. Let  $l1\_pre\_topc : \iota \Rightarrow o$  be given. Let  $v1\_tex\_2 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v2\_tex\_3 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m1\_pre\_topc : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_pre\_topc : \iota \Rightarrow o$  be given. Let  $v4\_tex\_3 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r4\_tsep\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_tdlat\_3 : \iota \Rightarrow o$  be given. Let  $v1\_tex\_3 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v3\_tex\_3 : \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v2\_pre\_topc X0) \wedge ((\neg v1\_tdlat\_3 \\ & X0) \wedge (l1\_pre\_topc X0)))) \Rightarrow (\forall X1.((\neg v2\_struct\_0 X1) \wedge ((v1\_tex\_2 \\ & X1 X0) \wedge ((v1\_tex\_3 X1 X0) \wedge (m1\_pre\_topc X1 X0)))) \Rightarrow (\exists X2.( \\ & (\neg v2\_struct\_0 X2) \wedge ((v1\_pre\_topc X2) \wedge ((v3\_tex\_3 X2 X0) \wedge (m1\_pre\_topc \\ & X2 X0)))) \wedge (r4\_tsep\_2 X0 X1 X2))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v2\_pre\_topc X0) \wedge (l1\_pre\_topc \\ & X0))) \Rightarrow (\forall X1.((\neg v2\_struct\_0 X1) \wedge (m1\_pre\_topc X1 X0)) \Rightarrow ( \\ & \forall X2.((\neg v2\_struct\_0 X2) \wedge (m1\_pre\_topc X2 X0)) \Rightarrow ((r4\_tsep\_2 \\ & X0 X1 X2) \Rightarrow ((v4\_tex\_3 X1 X0) \Leftrightarrow (v2\_tex\_3 X2 X0)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (((\neg v2\_struct\_0 X0) \wedge ((v2\_pre\_topc \\ & X0) \wedge (l1\_pre\_topc X0))) \wedge (((\neg v2\_struct\_0 X1) \wedge (m1\_pre\_topc X1 \\ & X0)) \wedge ((\neg v2\_struct\_0 X2) \wedge (m1\_pre\_topc X2 X0)))) \Rightarrow ((r4\_tsep\_2 \\ & X0 X1 X2) \Rightarrow (r4\_tsep\_2 X0 X2 X1)) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v2\_pre\_topc X0) \wedge (l1\_pre\_topc \\ & X0))) \Rightarrow (\forall X1.(m1\_pre\_topc X1 X0) \Rightarrow ((v2\_tex\_3 X1 X0) \Rightarrow (v1\_tex\_3 \\ & X1 X0))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v2\_pre\_topc X0) \wedge ((v1\_tdlat\_3 \\ X0) \wedge (l1\_pre\_topc X0)))) \Rightarrow (\forall X1.(m1\_pre\_topc X1 X0) \Rightarrow ((v1\_tex\_3 \\ X1 X0) \Rightarrow (\neg v1\_tex\_2 X1 X0))) \end{aligned} \quad (5)$$

**Theorem 1**

$$\begin{aligned} \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v2\_pre\_topc X0) \wedge ((\neg v3\_tdlat\_3 \\ X0) \wedge (l1\_pre\_topc X0)))) \Rightarrow (\forall X1.((\neg v2\_struct\_0 X1) \wedge ((v1\_tex\_2 \\ X1 X0) \wedge ((v2\_tex\_3 X1 X0) \wedge (m1\_pre\_topc X1 X0)))) \Rightarrow (\exists X2.( \\ (\neg v2\_struct\_0 X2) \wedge ((v1\_pre\_topc X2) \wedge ((v4\_tex\_3 X2 X0) \wedge (m1\_pre\_topc \\ X2 X0)))) \wedge (r4\_tsep\_2 X0 X1 X2))) \end{aligned}$$