

t54_tex_3 (TMcx-
iQb6yS8WnKdTNqzCgb8TnXQCJ4WV3g3)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v2_pre_topc : \iota \Rightarrow o$ be given. Let $v1_tdlat_3 : \iota \Rightarrow o$ be given. Let $l1_pre_topc : \iota \Rightarrow o$ be given. Let $v1_tex_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_tex_3 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_pre_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_pre_topc : \iota \Rightarrow o$ be given. Let $v3_tex_3 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r4_tsep_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v7_struct_0 : \iota \Rightarrow o$ be given. Let $r3_tsep_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0.((\neg v7_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc \\ X0))) \Rightarrow (\forall X1.((\neg v2_struct_0 X1) \wedge ((v1_tex_2 X1 X0) \wedge (m1_pre_topc \\ X1 X0))) \Rightarrow (\exists X2.((\neg v2_struct_0 X2) \wedge ((v1_pre_topc X2) \wedge (\\ v1_tex_2 X2 X0) \wedge (m1_pre_topc X2 X0)))) \wedge (r4_tsep_2 X0 X1 X2))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc \\ X0))) \Rightarrow (\forall X1.(m1_pre_topc X1 X0) \Rightarrow (\forall X2.(m1_pre_topc \\ X2 X0) \Rightarrow ((r3_tsep_2 X0 X1 X2) \Rightarrow ((v1_tex_3 X1 X0) \Leftrightarrow (v3_tex_3 X2 X0)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. \forall X2. (((\neg v2_struct_0 X0) \wedge ((v2_pre_topc \\ X0) \wedge (l1_pre_topc X0))) \wedge (((\neg v2_struct_0 X1) \wedge (m1_pre_topc X1 \\ X0)) \wedge ((\neg v2_struct_0 X2) \wedge (m1_pre_topc X2 X0)))) \Rightarrow ((r4_tsep_2 \\ X0 X1 X2) \Leftrightarrow (r3_tsep_2 X0 X1 X2)) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0.(l1_pre_topc X0) \Rightarrow (((\neg v2_struct_0 X0) \wedge ((v2_pre_topc \\ X0) \wedge (\neg v1_tdlat_3 X0))) \Rightarrow ((\neg v2_struct_0 X0) \wedge ((\neg v7_struct_0 X0) \wedge \\ (v2_pre_topc X0)))) \end{aligned} \quad (4)$$

Theorem 1

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge ((\neg v1_tdlat_3 \\ X0) \wedge (l1_pre_topc X0)))) \Rightarrow (\forall X1.((\neg v2_struct_0 X1) \wedge ((v1_tex_2 \\ X1 X0) \wedge ((v1_tex_3 X1 X0) \wedge (m1_pre_topc X1 X0)))) \Rightarrow (\exists X2.(\\ (\neg v2_struct_0 X2) \wedge ((v1_pre_topc X2) \wedge ((v3_tex_3 X2 X0) \wedge (m1_pre_topc \\ X2 X0)))) \wedge (r4_tsep_2 X0 X1 X2))) \end{aligned}$$