

t27_yellow18 (TMJLBbmEgxAemQQNEVe- bzyAPq7ZCbmNapxL)

October 27, 2020

Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v2_altcat_1 : \iota \Rightarrow o$ be given. Let $v11_altcat_1 : \iota \Rightarrow o$ be given. Let $v12_altcat_1 : \iota \Rightarrow o$ be given. Let $l2_altcat_1 : \iota \Rightarrow o$ be given. Let $r2_yellow18 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_yellow18 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r3_yellow18 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_yellow18 : \iota \Rightarrow \iota$ be given. Let $v6_altcat_1 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_altcat_1 X0) \wedge ((v11_altcat_1 \\ & \quad X0) \wedge ((v12_altcat_1 X0) \wedge (l2_altcat_1 X0)))))) \Rightarrow (\forall X1.((\\ & \neg v2_struct_0 X1) \wedge ((v2_altcat_1 X1) \wedge ((v11_altcat_1 X1) \wedge ((v12_altcat_1 \\ & \quad X1) \wedge (l2_altcat_1 X1)))))) \Rightarrow (\forall X2.((\neg v2_struct_0 X2) \wedge ((\\ & v2_altcat_1 X2) \wedge ((v11_altcat_1 X2) \wedge ((v12_altcat_1 X2) \wedge (l2_altcat_1 \\ & \quad X2)))))) \Rightarrow (\forall X3.((\neg v2_struct_0 X3) \wedge ((v2_altcat_1 X3) \wedge (\\ & \quad (v11_altcat_1 X3) \wedge ((v12_altcat_1 X3) \wedge (l2_altcat_1 X3)))))) \Rightarrow \\ & (((r2_yellow18 X0 X1) \wedge ((r2_yellow18 X2 X3) \wedge (r1_yellow18 X0 X2))) \Rightarrow \\ & \quad (r1_yellow18 X1 X3)))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((\neg v2_struct_0 X0) \wedge (l2_altcat_1 X0)) \wedge \\ & ((\neg v2_struct_0 X1) \wedge (l2_altcat_1 X1))) \Rightarrow ((r2_yellow18 X0 X1) \Rightarrow \\ & \quad (r2_yellow18 X1 X0)) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_altcat_1 X0) \wedge ((v12_altcat_1 \\ & \quad X0) \wedge (l2_altcat_1 X0)))) \Rightarrow ((\neg v2_struct_0 (k1_yellow18 X0)) \wedge (\\ & (v2_altcat_1 (k1_yellow18 X0)) \wedge ((v6_altcat_1 (k1_yellow18 X0)) \wedge \\ & \quad (v12_altcat_1 (k1_yellow18 X0)))))) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_altcat_1 X0) \wedge ((v11_altcat_1 \\ & \quad X0) \wedge (l2_altcat_1 X0)))) \Rightarrow ((\neg v2_struct_0 (k1_yellow18 X0)) \wedge (\\ & (v2_altcat_1 (k1_yellow18 X0)) \wedge ((v6_altcat_1 (k1_yellow18 X0)) \wedge \\ & \quad (v11_altcat_1 (k1_yellow18 X0)))))) \end{aligned} \tag{4}$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0) \wedge ((v2_altcat_1 X0) \wedge (l2_altcat_1 X0))) \Rightarrow ((\neg v2_struct_0 (k1_yellow18 X0)) \wedge ((v2_altcat_1 (k1_yellow18 X0)) \wedge ((v6_altcat_1 (k1_yellow18 X0)) \wedge (l2_altcat_1 (k1_yellow18 X0))))) \quad (5)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0) \wedge ((v2_altcat_1 X0) \wedge ((v11_altcat_1 X0) \wedge ((v12_altcat_1 X0) \wedge (l2_altcat_1 X0))))) \Rightarrow (\forall X1.((\neg v2_struct_0 X1) \wedge ((v2_altcat_1 X1) \wedge ((v11_altcat_1 X1) \wedge ((v12_altcat_1 X1) \wedge (l2_altcat_1 X1))))) \Rightarrow ((r3_yellow18 X0 X1) \Leftrightarrow (r1_yellow18 X0 (k1_yellow18 X1)))) \quad (6)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0) \wedge ((v2_altcat_1 X0) \wedge (l2_altcat_1 X0))) \Rightarrow (\forall X1.((\neg v2_struct_0 X1) \wedge ((v2_altcat_1 X1) \wedge ((v6_altcat_1 X1) \wedge (l2_altcat_1 X1))))) \Rightarrow ((X1 = k1_yellow18 X0) \Leftrightarrow (r2_yellow18 X0 X1)) \quad (7)$$

Theorem 1

$$\forall X0.((\neg v2_struct_0 X0) \wedge ((v2_altcat_1 X0) \wedge ((v11_altcat_1 X0) \wedge ((v12_altcat_1 X0) \wedge (l2_altcat_1 X0))))) \Rightarrow (\forall X1.((\neg v2_struct_0 X1) \wedge ((v2_altcat_1 X1) \wedge ((v11_altcat_1 X1) \wedge ((v12_altcat_1 X1) \wedge (l2_altcat_1 X1))))) \Rightarrow (\forall X2.((\neg v2_struct_0 X2) \wedge ((v2_altcat_1 X2) \wedge ((v11_altcat_1 X2) \wedge ((v12_altcat_1 X2) \wedge (l2_altcat_1 X2))))) \Rightarrow ((r2_yellow18 X0 X1) \Rightarrow ((r1_yellow18 X0 X2) \Leftrightarrow (r3_yellow18 X1 X2))))))$$