

t87_group_9
(TMZgwC2gF5i6JxFqRLGXzKjipAjfpXpLviq)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v2_group_1 : \iota \Rightarrow o$ be given. Let $v3_group_1 : \iota \Rightarrow o$ be given. Let $v3_group_9 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l1_group_9 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_group_9 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2_group_9 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v4_group_9 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k19_group_9 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v2_struct_0 X1) \wedge ((v2_group_1 X1) \wedge \\ & (v3_group_1 X1) \wedge ((v3_group_9 X1 X0) \wedge (l1_group_9 X1 X0)))) \Rightarrow (\\ & \forall X2. (m1_group_9 X2 X0 X1) \Rightarrow (\forall X3. ((v2_group_9 X3 X0) \wedge \\ & (m1_group_9 X3 X0 X2)) \Rightarrow (\forall X4. ((v2_group_9 X4 X0) \wedge (m1_group_9 \\ & X4 X0 X2)) \Rightarrow (\forall X5. ((v2_group_9 X5 X0) \wedge (m1_group_9 X5 X0 X1)) \Rightarrow \\ & (\forall X6. ((v2_group_9 X6 X0) \wedge (m1_group_9 X6 X0 X1)) \Rightarrow (((X3 = \\ & X5) \wedge (X4 = X6)) \Rightarrow (k19_group_9 X0 X1 X5 X6 = k19_group_9 X0 X2 X3 X4)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v2_struct_0 X1) \wedge ((v2_group_1 X1) \wedge \\ & (v3_group_1 X1) \wedge ((v3_group_9 X1 X0) \wedge (l1_group_9 X1 X0)))) \Rightarrow (\\ & \forall X2. ((v2_group_9 X2 X0) \wedge ((v4_group_9 X2 X0 X1) \wedge (m1_group_9 \\ & X2 X0 X1))) \Rightarrow (\forall X3. ((v2_group_9 X3 X0) \wedge ((v4_group_9 X3 X0 \\ & X1) \wedge (m1_group_9 X3 X0 X1))) \Rightarrow ((v4_group_9 (k19_group_9 X0 X1 X2 \\ & X3) X0 X1) \wedge (m1_group_9 (k19_group_9 X0 X1 X2 X3) X0 X1))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v2_struct_0 X1) \wedge ((v2_group_1 X1) \wedge \\ & (v3_group_1 X1) \wedge ((v3_group_9 X1 X0) \wedge (l1_group_9 X1 X0)))) \Rightarrow (\\ & \forall X2. (m1_group_9 X2 X0 X1) \Rightarrow ((\neg v2_struct_0 X2) \wedge ((v2_group_1 \\ & X2) \wedge ((v3_group_1 X2) \wedge ((v3_group_9 X2 X0) \wedge (l1_group_9 X2 X0)))))) \end{aligned} \tag{3}$$

Theorem 1

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v2_struct_0 X1) \wedge ((v2_group_1 X1) \wedge \\ & (v3_group_1 X1) \wedge ((v3_group_9 X1 X0) \wedge (l1_group_9 X1 X0)))) \Rightarrow (\\ & \forall X2. (m1_group_9 X2 X0 X1) \Rightarrow (\forall X3. ((v2_group_9 X3 X0) \wedge \\ & (m1_group_9 X3 X0 X1)) \Rightarrow (\forall X4. ((v2_group_9 X4 X0) \wedge (m1_group_9 \\ & X4 X0 X1)) \Rightarrow (((v4_group_9 X3 X0 X2) \wedge (m1_group_9 X3 X0 X2)) \wedge ((v4_group_9 \\ & X4 X0 X2) \wedge (m1_group_9 X4 X0 X2))) \Rightarrow ((v4_group_9 (k19_group_9 X0 \\ & X1 X3 X4) X0 X2) \wedge (m1_group_9 (k19_group_9 X0 X1 X3 X4) X0 X2)))))) \end{aligned}$$