

t68_group_4 (TMGbZiA- jsWrMBHLGK6hn98HnmvMUnZKkCSG)

October 27, 2020

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 $l3_algstr_0 : \iota \Rightarrow o$ be given. Let $v15_algstr_0 : \iota \Rightarrow o$ be given. Let $m1_group_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_group_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k8_group_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10_group_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 \\ & X0) \wedge (l3_algstr_0 X0)))) \Rightarrow (\forall X1.(m1_group_2 X1 X0) \Rightarrow (\forall X2. \\ & ((v15_algstr_0 X2) \wedge (m1_group_2 X2 X0)) \Rightarrow (r1_group_2 X0 (k10_group_2 \\ & X0 X2 (k8_group_4 X0 X2 X1)) X2))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 \\ & X0) \wedge (l3_algstr_0 X0)))) \Rightarrow (\forall X1.(m1_group_2 X1 X0) \Rightarrow (\forall X2. \\ & ((v15_algstr_0 X2) \wedge (m1_group_2 X2 X0)) \Rightarrow (r1_group_2 X0 (k8_group_4 \\ & X0 (k10_group_2 X0 X1 X2) X2) X2))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (((\neg v2_struct_0 X0) \wedge ((v2_group_1 \\ & X0) \wedge ((v3_group_1 X0) \wedge (l3_algstr_0 X0)))) \wedge (((v15_algstr_0 X1) \wedge \\ & (m1_group_2 X1 X0)) \wedge ((v15_algstr_0 X2) \wedge (m1_group_2 X2 X0)))) \Rightarrow \\ & ((r1_group_2 X0 X1 X2) \Leftrightarrow (X1 = X2)) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (((\neg v2_struct_0 X0) \wedge ((v2_group_1 \\ & X0) \wedge ((v3_group_1 X0) \wedge (l3_algstr_0 X0)))) \wedge ((m1_group_2 X1 X0) \wedge \\ & (m1_group_2 X2 X0))) \Rightarrow ((v15_algstr_0 (k8_group_4 X0 X1 X2)) \wedge (m1_group_2 \\ & (k8_group_4 X0 X1 X2) X0)) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (((\neg v2_struct_0 X0) \wedge (v2_group_1 \\ & X0) \wedge (v3_group_1 X0) \wedge (l3_algstr_0 X0))) \wedge ((m1_group_2 X1 X0) \wedge \\ & (m1_group_2 X2 X0)) \Rightarrow ((v15_algstr_0 (k10_group_2 X0 X1 X2)) \wedge (\\ & m1_group_2 (k10_group_2 X0 X1 X2) X0)) \end{aligned} \quad (5)$$

Theorem 1

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge (v2_group_1 X0) \wedge (v3_group_1 \\ & X0) \wedge (l3_algstr_0 X0)) \Rightarrow (\forall X1. ((v15_algstr_0 X1) \wedge (m1_group_2 \\ & X1 X0)) \Rightarrow (\forall X2. ((v15_algstr_0 X2) \wedge (m1_group_2 X2 X0)) \Rightarrow (\\ & (r1_group_2 X0 (k8_group_4 X0 X1 X2) X2) \Leftrightarrow (r1_group_2 X0 (k10_group_2 \\ & X0 X1 X2) X1))) \end{aligned}$$