

t53_group_4 (TMRMNfaZmuzSccYPczPcjQRN- spmpfMWF19M)

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 $v1_group_3 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_group_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k8_group_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_group_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_group_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_group_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 \\ & X0) \wedge (l3_algstr_0 X0)))) \Rightarrow (\forall X1.(m1_group_2 X1 X0) \Rightarrow (\forall X2. \\ (m1_group_2 X2 X0) \Rightarrow ((k7_group_4 X0 X1 X2 = k7_group_4 X0 X2 X1) \Rightarrow (\\ u1_struct_0 (k8_group_4 X0 X1 X2) = k7_group_4 X0 X1 X2)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 \\ & X0) \wedge (l3_algstr_0 X0)))) \Rightarrow (\forall X1.((v15_algstr_0 X1) \wedge ((v1_group_3 \\ & X1 X0) \wedge (m1_group_2 X1 X0))) \Rightarrow (\forall X2.((v15_algstr_0 X2) \wedge (\\ (v1_group_3 X2 X0) \wedge (m1_group_2 X2 X0))) \Rightarrow (k2_group_2 X0 (k8_group_2 \\ X0 X1) (k8_group_2 X0 X2) = k2_group_2 X0 (k8_group_2 X0 X2) (k8_group_2 \\ X0 X1)))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 \\ & X0) \wedge (l3_algstr_0 X0)))) \Rightarrow (\forall X1.(m1_group_2 X1 X0) \Rightarrow (\forall X2. \\ (m1_group_2 X2 X0) \Rightarrow (k7_group_4 X0 X1 X2 = k2_group_2 X0 (k8_group_2 \\ X0 X1) (k8_group_2 X0 X2)))) \end{aligned} \quad (3)$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 \\ & X0) \wedge (l3_algstr_0 X0)))) \Rightarrow (\forall X1.((v15_algstr_0 X1) \wedge ((v1_group_3 \\ & X1 X0) \wedge (m1_group_2 X1 X0))) \Rightarrow (\forall X2.((v15_algstr_0 X2) \wedge (\\ (v1_group_3 X2 X0) \wedge (m1_group_2 X2 X0))) \Rightarrow (u1_struct_0 (k8_group_4 \\ X0 X1 X2) = k7_group_4 X0 X1 X2))) \end{aligned}$$