

t7_group_11

(TMcJ5LcHPbc8VWKtr6hP66KDzKKd4hmiigv)

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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 $l3_algstr_0 : \iota \Rightarrow o$ 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 $k7_group_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_group_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 \\ & X0) \wedge (l3_algstr_0 X0)))) \Rightarrow (\forall X1.((v15_algstr_0 X1) \wedge ((v1_group_3 \\ & X1 X0) \wedge (m1_group_2 X1 X0))) \Rightarrow (\forall X2.((v15_algstr_0 X2) \wedge (\\ & (v1_group_3 X2 X0) \wedge (m1_group_2 X2 X0))) \Rightarrow (u1_struct_0 (k8_group_4 \\ & X0 X1 X2) = k7_group_4 X0 X1 X2))) \end{aligned} \tag{1}$$

Assume the following.

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

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 \\ & X0) \wedge (l3_algstr_0 X0)))) \Rightarrow (\forall X1.((v15_algstr_0 X1) \wedge ((v1_group_3 \\ & X1 X0) \wedge (m1_group_2 X1 X0))) \Rightarrow (\forall X2.((v15_algstr_0 X2) \wedge (\\ & (v1_group_3 X2 X0) \wedge (m1_group_2 X2 X0))) \Rightarrow (\exists X3.((v15_algstr_0 \\ & X3) \wedge (m1_group_2 X3 X0)) \wedge (u1_struct_0 X3 = k7_group_4 X0 X1 X2)))) \end{aligned}$$