

t15_group_9 (TMP- whAn9dABi5617b8QPLX5z7qSDHYJrRKA)

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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 $k4_group_9 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_group_1 : \iota \Rightarrow \iota$ be given. Let $v2_group_9 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v2_struct_0 X1) \wedge ((v2_group_1 X1) \wedge \\ & (v3_group_1 X1) \wedge ((v3_group_9 X1 X0) \wedge (l1_group_9 X1 X0)))) \Rightarrow (\\ & \forall X2. (m1_group_9 X2 X0 X1) \Rightarrow (k1_group_1 X1 = k1_group_1 X2)) \end{aligned} \quad (1)$$

Assume the following.

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

Assume the following.

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

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v2_struct_0 X1) \wedge ((v2_group_1 X1) \wedge \\ & (v3_group_1 X1) \wedge ((v3_group_9 X1 X0) \wedge (l1_group_9 X1 X0)))) \Rightarrow (\\ & (v2_group_9 (k4_group_9 X0 X1) X0) \wedge (m1_group_9 (k4_group_9 X0 \\ & X1) X0 X1)) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.((\neg v2_struct_0 X1)\wedge((v2_group_1 X1)\wedge \\ & (v3_group_1 X1)\wedge((v3_group_9 X1 X0)\wedge(l1_group_9 X1 X0))))\Rightarrow(\\ \forall X2.((v2_group_9 X2 X0)\wedge(m1_group_9 X2 X0 X1))\Rightarrow((X2 = k4_group_9 \\ & X0 X1)\Leftrightarrow(u1_struct_0 X2 = k1_tarSKI (k1_group_1 X1)))) \end{aligned} \tag{5}$$

Theorem 1

$$\begin{aligned} & \forall X0.\forall X1.((\neg v2_struct_0 X1)\wedge((v2_group_1 X1)\wedge \\ & (v3_group_1 X1)\wedge((v3_group_9 X1 X0)\wedge(l1_group_9 X1 X0))))\Rightarrow(\\ \forall X2.(m1_group_9 X2 X0 X1)\Rightarrow(k4_group_9 X0 X1 = k4_group_9 \\ & X0 X2)) \end{aligned}$$