

t21_group_9 (TMYzgyYNMLAPEQkeBi- AcbXtdZWNP3As1ZxM)

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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 $k17_group_9 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_group_9 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2_group_9 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0. \forall X1. ((\neg v2_struct_0 X1) \wedge ((v2_group_1 X1) \wedge \\ (v3_group_1 X1) \wedge ((v3_group_9 X1 X0) \wedge (l1_group_9 X1 X0)))) \Rightarrow (\\ \forall X2. (m1_group_9 X2 X0 X1) \Rightarrow (m1_group_9 (k4_group_9 X0 X1) \\ X0 X2)) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. ((\neg v2_struct_0 X1) \wedge ((v2_group_1 X1) \wedge \\ (v3_group_1 X1) \wedge ((v3_group_9 X1 X0) \wedge (l1_group_9 X1 X0)))) \Rightarrow (\\ \forall X2. (m1_group_9 X2 X0 X1) \Rightarrow (\forall X3. ((v2_group_9 X3 X0) \wedge \\ (m1_group_9 X3 X0 X1)) \Rightarrow ((m1_group_9 X3 X0 X2) \Leftrightarrow (k17_group_9 X0 X1 \\ X3 X2 = X3)))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. ((\neg v2_struct_0 X1) \wedge ((v2_group_1 X1) \wedge \\ (v3_group_1 X1) \wedge ((v3_group_9 X1 X0) \wedge (l1_group_9 X1 X0)))) \Rightarrow (\\ (v2_group_9 (k4_group_9 X0 X1) X0) \wedge (m1_group_9 (k4_group_9 X0 \\ X1) X0 X1)) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. \forall X2. \forall X3. (((\neg v2_struct_0 \\ X1) \wedge ((v2_group_1 X1) \wedge ((v3_group_1 X1) \wedge ((v3_group_9 X1 X0) \wedge \\ (l1_group_9 X1 X0)))))) \wedge ((m1_group_9 X2 X0 X1) \wedge (m1_group_9 X3 X0 \\ X1)) \Rightarrow (k17_group_9 X0 X1 X2 X3 = k17_group_9 X0 X1 X3 X2) \end{aligned} \quad (4)$$

Theorem 1

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v2_struct_0 X1) \wedge ((v2_group_1 X1) \wedge \\ & (v3_group_1 X1) \wedge (v3_group_9 X1 X0) \wedge (l1_group_9 X1 X0)))) \Rightarrow (\\ & \forall X2. (m1_group_9 X2 X0 X1) \Rightarrow ((k17_group_9 X0 X1 (k4_group_9 \\ & X0 X1) X2 = k4_group_9 X0 X1) \wedge (k17_group_9 X0 X1 X2 (k4_group_9 X0 \\ & X1) = k4_group_9 X0 X1))) \end{aligned}$$