

t5_latsubgr
(TMJg2q4DbdqGckazqjVsvsvGqRVvQhwohSZ)

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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 $m1_group_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $r1_struct_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k8_group_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v15_algstr_0 : \iota \Rightarrow o$ be given. Assume the following.

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

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v2_struct_0 X1) \wedge ((v2_group_1 X1) \wedge (\\ l3_algstr_0 X1))) \Rightarrow (\forall X2.(m1_group_2 X2 X1) \Rightarrow ((r1_struct_0 \\ X2 X0) \Rightarrow (r1_struct_0 X1 X0))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge (l3_algstr_0 \\ X0))) \Rightarrow (\forall X1.(m1_group_2 X1 X0) \Rightarrow ((\neg v2_struct_0 X1) \wedge ((v2_group_1 \\ X1) \wedge (l3_algstr_0 X1)))) \end{aligned} \quad (3)$$

Assume the following.

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

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 \\ & X0) \wedge (l3_algstr_0 X0)))) \Rightarrow (\forall X1.(m1_group_2 X1 X0) \Rightarrow (\forall X2. \\ & (m1_group_2 X2 X0) \Rightarrow (\forall X3.(m1_subset_1 X3 (u1_struct_0 X0) \Rightarrow \\ & ((r1_struct_0 X1 X3) \vee (r1_struct_0 X2 X3)) \Rightarrow (r1_struct_0 (k8_group_4 \\ & X0 X1 X2) X3)))))) \end{aligned}$$