

t24_group_6
(TMcfd8C7wVeHey8GU2eQLteQr2Mr3fitm35)

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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 $v1_group_3 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_group_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_group_1 : \iota \Rightarrow \iota$ be given. Let $k5_group_6 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_group_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k6_algstr_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_group_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k14_group_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k13_group_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_group_6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k15_group_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v15_algstr_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 \\ & X0) \wedge (l3_algstr_0 X0)))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 \\ & X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (((k6_algstr_0 \\ & X0 X1 X2 = X1) \vee (k6_algstr_0 X0 X2 X1 = X1)) \Rightarrow (X2 = k1_group_1 X0)))) \end{aligned} \quad (1)$$

Assume the following.

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

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 \\ & X0) \wedge (l3_algstr_0 X0)))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 \\ & X0)) \Rightarrow (\forall X2.((v1_group_3 X2 X0) \wedge (m1_group_2 X2 X0)) \Rightarrow ((m1_subset_1 \\ & (k14_group_2 X0 X2 X1) (u1_struct_0 (k5_group_6 X0 X2))) \wedge ((m1_subset_1 \\ & (k13_group_2 X0 X2 X1) (u1_struct_0 (k5_group_6 X0 X2))) \wedge (m1_subset_1 \\ & (k8_group_2 X0 X2) (u1_struct_0 (k5_group_6 X0 X2)))))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 \\ X0) \wedge (l3_algstr_0 X0)))) \Rightarrow (\forall X1.((v1_group_3 X1 X0) \wedge (m1_group_2 \\ X1 X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 (k5_group_6 \\ X0 X1))) \Rightarrow (\forall X3.(m1_subset_1 X3 (u1_struct_0 (k5_group_6 \\ X0 X1))) \Rightarrow (k2_group_2 X0 (k6_group_6 X0 X1 X2) (k6_group_6 X0 X1 X3) = \\ k6_algstr_0 (k5_group_6 X0 X1) X2 X3)))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 \\ X0) \wedge (l3_algstr_0 X0)))) \Rightarrow (\forall X1.((v1_group_3 X1 X0) \wedge (m1_group_2 \\ X1 X0)) \Rightarrow (u1_struct_0 (k5_group_6 X0 X1) = k15_group_2 X0 X1)) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. (((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge \\ ((v3_group_1 X0) \wedge (l3_algstr_0 X0)))) \wedge ((v1_group_3 X1 X0) \wedge (m1_group_2 \\ X1 X0))) \Rightarrow ((v2_group_1 (k5_group_6 X0 X1)) \wedge (v3_group_1 (k5_group_6 \\ X0 X1))) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. (((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge \\ ((v3_group_1 X0) \wedge (l3_algstr_0 X0)))) \wedge ((v1_group_3 X1 X0) \wedge (m1_group_2 \\ X1 X0))) \Rightarrow ((\neg v2_struct_0 (k5_group_6 X0 X1)) \wedge (v15_algstr_0 (k5_group_6 \\ X0 X1))) \end{aligned} \quad (7)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. (((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge \\ ((v3_group_1 X0) \wedge (l3_algstr_0 X0)))) \wedge ((v1_group_3 X1 X0) \wedge (m1_group_2 \\ X1 X0))) \Rightarrow (l3_algstr_0 (k5_group_6 X0 X1)) \end{aligned} \quad (8)$$

Assume the following.

$$\forall X0. (l3_algstr_0 X0) \Rightarrow (m1_subset_1 (k1_group_1 X0) (u1_struct_0 X0)) \quad (9)$$

Assume the following.

$$\begin{aligned} \forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 \\ X0) \wedge (l3_algstr_0 X0)))) \Rightarrow (\forall X1. (m1_group_2 X1 X0) \Rightarrow (k8_group_2 \\ X0 X1 = u1_struct_0 X1)) \end{aligned} \quad (10)$$

Assume the following.

$$\begin{aligned} \forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 \\ X0) \wedge (l3_algstr_0 X0)))) \Rightarrow (\forall X1. ((v1_group_3 X1 X0) \wedge (m1_group_2 \\ X1 X0)) \Rightarrow (\forall X2. (m1_subset_1 X2 (u1_struct_0 (k5_group_6 \\ X0 X1))) \Rightarrow (k6_group_6 X0 X1 X2 = X2))) \end{aligned} \quad (11)$$

Theorem 1

$$\forall X0.((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 X0) \wedge (l3_algsr_0 X0)))) \Rightarrow (\forall X1.((v1_group_3 X1 X0) \wedge (m1_group_2 X1 X0)) \Rightarrow (k1_group_1 (k5_group_6 X0 X1) = k8_group_2 X0 X1))$$