

t72_group_6
(TMExhs6GVxaAgwpgDbpN8euMAMmMVnP3zH4)

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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 $v7_struct_0 : \iota \Rightarrow o$ be given. Let $k5_group_6 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_group_2 : \iota \Rightarrow \iota$ 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 $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k13_group_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k14_group_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_group_2 : \iota \Rightarrow \iota$ be given. Let $v15_algstr_0 : \iota \Rightarrow o$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 \\ X0) \wedge (l3_algstr_0 X0)))) \Rightarrow (\forall X1.((v1_group_3 X1 X0) \wedge (m1_group_2 \\ X1 X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 (k5_group_6 \\ X0 X1))) \Rightarrow (\exists X3.(m1_subset_1 X3 (u1_struct_0 X0)) \wedge ((X2 = \\ k13_group_2 X0 X1 X3) \wedge (X2 = k14_group_2 X0 X1 X3)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 \\ X0) \wedge (l3_algstr_0 X0)))) \Rightarrow ((v1_group_3 (k6_group_2 X0) X0) \wedge (v1_group_3 \\ (k7_group_2 X0) X0)) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 \\ X0) \wedge (l3_algstr_0 X0)))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 \\ X0)) \Rightarrow ((k13_group_2 X0 (k7_group_2 X0) X1 = u1_struct_0 X0) \wedge (k14_group_2 \\ X0 (k7_group_2 X0) X1 = u1_struct_0 X0))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 \\ X0) \wedge (l3_algstr_0 X0)))) \Rightarrow ((v15_algstr_0 (k7_group_2 X0)) \wedge (v1_group_3 \\ (k7_group_2 X0) X0)) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0.(l3_algstr_0 X0) \Rightarrow (l1_struct_0 X0) \quad (5)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 X0) \wedge (l3_algstr_0 X0)))) \Rightarrow ((v15_algstr_0 (k7_group_2 X0)) \wedge (m1_group_2 (k7_group_2 X0) X0)) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.(((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 X0) \wedge (l3_algstr_0 X0)))) \wedge ((v1_group_3 X1 X0) \wedge (m1_group_2 X1 X0))) \Rightarrow (l3_algstr_0 (k5_group_6 X0 X1)) \quad (7)$$

Assume the following.

$$\forall X0.(l1_struct_0 X0) \Rightarrow ((v7_struct_0 X0) \Leftrightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0) \Rightarrow (X1 = X2)))))) \quad (8)$$

Theorem 1

$$\forall X0.((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 X0) \wedge (l3_algstr_0 X0)))) \Rightarrow (v7_struct_0 (k5_group_6 X0 (k7_group_2 X0)))$$