

t4_group_11

(TMPvtjHH52HUwi18Leve8tVLDTCzA3veJyZ)

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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 $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ 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 $r1_struct_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_algstr_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_group_1 : \iota \Rightarrow \iota \Rightarrow \iota$ 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. Assume the following.

$$\begin{aligned}
& \forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 \\
& X0) \wedge (l3_algstr_0 X0)))) \Rightarrow (\forall X1. (m1_subset_1 X1 (u1_struct_0 \\
& X0)) \Rightarrow (\forall X2. (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow ((k6_algstr_0 \\
& X0 (k6_algstr_0 X0 X1 X2) (k2_group_1 X0 X2) = X1) \wedge ((k6_algstr_0 \\
& X0 (k6_algstr_0 X0 X1 (k2_group_1 X0 X2)) X2 = X1) \wedge ((k6_algstr_0 \\
& X0 (k6_algstr_0 X0 (k2_group_1 X0 X2) X2) X1 = X1) \wedge ((k6_algstr_0 \\
& X0 (k6_algstr_0 X0 X2 (k2_group_1 X0 X2)) X1 = X1) \wedge ((k6_algstr_0 \\
& X0 X1 (k6_algstr_0 X0 X2 (k2_group_1 X0 X2)) = X1) \wedge ((k6_algstr_0 \\
& X0 X1 (k6_algstr_0 X0 (k2_group_1 X0 X2) X2) = X1) \wedge ((k6_algstr_0 \\
& X0 (k2_group_1 X0 X2) (k6_algstr_0 X0 X2 X1) = X1) \wedge (k6_algstr_0 X0 \\
& X2 (k6_algstr_0 X0 (k2_group_1 X0 X2) X1) = X1)))))))))
\end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
& \forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 \\
& X0) \wedge (l3_algstr_0 X0)))) \Rightarrow (\forall X1. (m1_subset_1 X1 (u1_struct_0 \\
& X0)) \Rightarrow (\forall X2. (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3. \\
& (m1_group_2 X3 X0) \Rightarrow ((k14_group_2 X0 X3 X1 = k14_group_2 X0 X3 X2) \Leftrightarrow \\
& (r1_struct_0 X3 (k6_algstr_0 X0 X2 (k2_group_1 X0 X1)))))))))
\end{aligned} \tag{2}$$

Assume the following.

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

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 \\
& X0) \wedge (l3_algstr_0 X0)))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 \\
& X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3. \\
& (m1_group_2 X3 X0) \Rightarrow ((k13_group_2 X0 X3 X1 = k13_group_2 X0 X3 X2) \Leftrightarrow \\
& (r1_struct_0 X3 (k6_algstr_0 X0 (k2_group_1 X0 X2) X1))))))
\end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. \forall X2. ((l3_algstr_0 X0) \wedge ((m1_subset_1 \\
& X1 (u1_struct_0 X0)) \wedge (m1_subset_1 X2 (u1_struct_0 X0)))) \Rightarrow (m1_subset_1 \\
& (k6_algstr_0 X0 X1 X2) (u1_struct_0 X0))
\end{aligned} \tag{5}$$

Theorem 1

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 \\
& X0) \wedge (l3_algstr_0 X0)))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 \\
& X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3. \\
& ((v1_group_3 X3 X0) \wedge (m1_group_2 X3 X0)) \Rightarrow ((r1_struct_0 X3 X2) \Rightarrow \\
& (r1_struct_0 X3 (k6_algstr_0 X0 (k6_algstr_0 X0 X1 X2) (k2_group_1 \\
& X0 X1))))))
\end{aligned}$$