

t13_group_1

(TMZj88ea83pCXCbmwJSVDNdYtBx5uWn9Z32)

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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 $k6_algstr_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_group_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_group_1 : \iota \Rightarrow \iota$ be given. Assume the following.

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

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 \\ X0) \wedge (l3_algstr_0 X0)))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 \\ X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow ((k6_algstr_0 \\ X0 X1 X2 = k1_group_1 X0) \Rightarrow ((X1 = k2_group_1 X0 X2) \wedge (X2 = k2_group_1 \\ X0 X1)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0.(l3_algstr_0 X0) \Rightarrow ((v3_group_1 X0) \Leftrightarrow (\forall X1.(m1_subset_1 \\ X1 (u1_struct_0 X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 \\ X0)) \Rightarrow (\forall X3.(m1_subset_1 X3 (u1_struct_0 X0)) \Rightarrow (k6_algstr_0 \\ X0 (k6_algstr_0 X0 X1 X2) X3 = k6_algstr_0 X0 X1 (k6_algstr_0 X0 X2 \\ X3)))))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0.(l3_algstr_0 X0) \Rightarrow ((v2_group_1 X0) \Leftrightarrow (\exists X1.(m1_subset_1 \\ X1 (u1_struct_0 X0)) \wedge (\forall X2.(m1_subset_1 X2 (u1_struct_0 \\ X0)) \Rightarrow ((k6_algstr_0 X0 X2 X1 = X2) \wedge ((k6_algstr_0 X0 X1 X2 = X2) \wedge (\exists X3. \\ (m1_subset_1 X3 (u1_struct_0 X0)) \wedge ((k6_algstr_0 X0 X2 X3 = X1) \wedge \\ (k6_algstr_0 X0 X3 X2 = X1)))))))) \end{aligned} \quad (4)$$

Theorem 1

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