

t48_group_4
(TMExJ3QaQ86FMEgwgPYNZYF7RQpPuCXtoJu)

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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 $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $m1_group_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_group_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_group_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k12_group_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_group_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k11_group_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 \\ & X0) \wedge (l3_algstr_0 X0)))) \Rightarrow (\forall X1.(m1_group_2 X1 X0) \Rightarrow (\forall X2. \\ & (m1_group_2 X2 X0) \Rightarrow ((k7_group_4 X0 X1 X2 = k2_group_2 X0 (k8_group_2 \\ & X0 X1) (k8_group_2 X0 X2)) \wedge ((k7_group_4 X0 X1 X2 = k12_group_2 X0 \\ & X1 (k8_group_2 X0 X2)) \wedge (k7_group_4 X0 X1 X2 = k11_group_2 X0 X2 (k8_group_2 \\ & X0 X1)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 \\ & X0) \wedge (l3_algstr_0 X0)))) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 \\ & (u1_struct_0 X0))) \Rightarrow (\forall X2.(m1_group_2 X2 X0) \Rightarrow (\forall X3. \\ & (m1_group_2 X3 X0) \Rightarrow (k2_group_2 X0 (k12_group_2 X0 X2 (k8_group_2 \\ & X0 X3)) X1 = k12_group_2 X0 X2 (k12_group_2 X0 X3 X1)))))) \end{aligned} \tag{2}$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 \\ & X0) \wedge (l3_algstr_0 X0)))) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 \\ & (u1_struct_0 X0))) \Rightarrow (\forall X2.(m1_group_2 X2 X0) \Rightarrow (\forall X3. \\ & (m1_group_2 X3 X0) \Rightarrow (k2_group_2 X0 (k7_group_4 X0 X2 X3) X1 = k12_group_2 \\ & X0 X2 (k12_group_2 X0 X3 X1)))))) \end{aligned}$$