

t44_group_4
(TMSaL9Z3b69tsqgst9LhHWbz74uJcw1toZ2)

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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 $m1_group.2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k11_group.2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ 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 $k2_group.2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ 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 $k1_zfmisc.1 : \iota \Rightarrow \iota$ be given. Let $u1_struct.0 : \iota \Rightarrow \iota$ 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.

$$\begin{aligned} & \forall X0.((\neg v2_struct.0 X0) \wedge ((v2_group.1 X0) \wedge ((v3_group.1 \\ & X0) \wedge (l3_algstr.0 X0)))) \Rightarrow (\forall X1.(m1_subset.1 X1 (k1_zfmisc.1 \\ & (u1_struct.0 X0))) \Rightarrow (\forall X2.(m1_group.2 X2 X0) \Rightarrow (\forall X3. \\ & (m1_group.2 X3 X0) \Rightarrow (k11_group.2 X0 X3 (k12_group.2 X0 X2 X1) = k12_group.2 \\ & X0 X2 (k11_group.2 X0 X3 X1)))))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((\neg v2_struct.0 X0) \wedge ((v2_group.1 X0) \wedge \\ & ((v3_group.1 X0) \wedge (l3_algstr.0 X0)))) \wedge (m1_group.2 X1 X0)) \Rightarrow (m1_subset.1 \\ & (k8_group.2 X0 X1) (k1_zfmisc.1 (u1_struct.0 X0))) \end{aligned} \tag{3}$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v2_struct.0 X0) \wedge ((v2_group.1 X0) \wedge ((v3_group.1 \\ & X0) \wedge (l3_algstr.0 X0)))) \Rightarrow (\forall X1.(m1_group.2 X1 X0) \Rightarrow (\forall X2. \\ & (m1_group.2 X2 X0) \Rightarrow (\forall X3.(m1_group.2 X3 X0) \Rightarrow (k11_group.2 \\ & X0 X3 (k7_group.4 X0 X1 X2) = k12_group.2 X0 X1 (k7_group.4 X0 X2 X3)))))) \end{aligned}$$