

t6_group_5
(TMcdeYYkeErGDSm6vny5Jhea6ftGUKabdcT)

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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 $v5_group_1 : \iota \Rightarrow o$ be given. Let $r1_struct_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k8_group_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ 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 $k7_group_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ 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. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v2_struct_0 X1) \wedge ((v2_group_1 X1) \wedge \\ & (v3_group_1 X1) \wedge (l3_algstr_0 X1))) \Rightarrow (\forall X2. (m1_group_2 \\ X2 X1) \Rightarrow (\forall X3. (m1_group_2 X3 X1) \Rightarrow ((k7_group_4 X1 X2 X3 = k7_group_4 \\ X1 X3 X2) \Rightarrow ((r1_struct_0 (k8_group_4 X1 X2 X3) X0) \Leftrightarrow (\exists X4. (\\ m1_subset_1 X4 (u1_struct_0 X1)) \wedge (\exists X5. (m1_subset_1 X5 \\ (u1_struct_0 X1)) \wedge ((X0 = k6_algstr_0 X1 X4 X5) \wedge ((r1_struct_0 X2 \\ X4) \wedge (r1_struct_0 X3 X5)))))))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge (l3_algstr_0 X0)) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow (\forall X2. \\ & (m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow (((\neg v2_struct_0 \\ X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 X0) \wedge ((v5_group_1 X0) \wedge (l3_algstr_0 \\ X0)))))) \Rightarrow (k2_group_2 X0 X1 X2 = k2_group_2 X0 X2 X1))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge \\ & ((v3_group_1 X0) \wedge (l3_algstr_0 X0)))) \wedge (m1_group_2 X1 X0)) \Rightarrow (m1_subset_1 \\ & (k8_group_2 X0 X1) (k1_zfmisc_1 (u1_struct_0 X0))) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 \\ & X0) \wedge (l3_algstr_0 X0)))) \Rightarrow (\forall X1.(m1_group_2 X1 X0) \Rightarrow (\forall X2. \\ & (m1_group_2 X2 X0) \Rightarrow (k7_group_4 X0 X1 X2 = k2_group_2 X0 (k8_group_2 \\ & X0 X1) (k8_group_2 X0 X2)))) \end{aligned} \quad (4)$$

Theorem 1

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v2_struct_0 X1) \wedge ((v2_group_1 X1) \wedge \\ & (v3_group_1 X1) \wedge (l3_algstr_0 X1))) \Rightarrow (\forall X2.(m1_group_2 \\ & X2 X1) \Rightarrow (\forall X3.(m1_group_2 X3 X1) \Rightarrow (((\neg v2_struct_0 X1) \wedge ((\\ & v2_group_1 X1) \wedge ((v3_group_1 X1) \wedge ((v5_group_1 X1) \wedge (l3_algstr_0 \\ & X1)))))) \Rightarrow ((r1_struct_0 (k8_group_4 X1 X2 X3) X0) \Leftrightarrow (\exists X4.(\\ & m1_subset_1 X4 (u1_struct_0 X1)) \wedge (\exists X5.(m1_subset_1 X5 \\ & (u1_struct_0 X1)) \wedge ((X0 = k6_algstr_0 X1 X4 X5) \wedge ((r1_struct_0 X2 \\ & X4) \wedge (r1_struct_0 X3 X5)))))))))) \end{aligned}$$