

t74_group_6
(TMGctLWswcD4a8oPfcEd6Nadi7L5o2yXDcf)

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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 $r1_group_6 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v8_struct_0 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v3_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2_funct_1 : \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $v1_group_6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k10_group_6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $v15_algstr_0 : \iota \Rightarrow o$ be given. Let $m1_group_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. ((v1_funct_1 X2) \wedge ((v1_funct_2 \\ & X2 X0 X1) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))) \Rightarrow \\ & ((v3_funct_2 X2 X0 X1) \Leftrightarrow ((k2_relset_1 X1 X2 = X1) \wedge (v2_funct_1 X2))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 \\ & X0) \wedge (l3_algstr_0 X0)))) \Rightarrow (\forall X1. ((\neg v2_struct_0 X1) \wedge ((v2_group_1 \\ & X1) \wedge ((v3_group_1 X1) \wedge (l3_algstr_0 X1)))) \Rightarrow (\forall X2. ((v1_funct_1 \\ & X2) \wedge ((v1_funct_2 X2 (u1_struct_0 X0) (u1_struct_0 X1)) \wedge ((v1_group_6 \\ & X2 X0 X1) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 \\ & X0) (u1_struct_0 X1)))))) \Rightarrow (k2_relset_1 (u1_struct_0 X1) X2 = \\ & u1_struct_0 (k10_group_6 X0 X1 X2))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0. ((\neg v8_struct_0 X0) \wedge (l1_struct_0 X0)) \Rightarrow (\neg v1_finset_1 (u1_struct_0 X0)) \quad (3)$$

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$$\forall X0. ((v8_struct_0 X0) \wedge (l1_struct_0 X0)) \Rightarrow (v1_finset_1 (u1_struct_0 X0)) \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.(((\neg v2_struct_0 X0)\wedge((v8_struct_0 \\ & X0)\wedge((v2_group_1 X0)\wedge((v3_group_1 X0)\wedge(l3_algstr_0 X0))))\wedge \\ & (((\neg v2_struct_0 X1)\wedge((v2_group_1 X1)\wedge((v3_group_1 X1)\wedge(l3_algstr_0 \\ & X1))))\wedge((v1_funct_1 X2)\wedge((v1_funct_2 X2 (u1_struct_0 X0) (u1_struct_0 \\ & X1))\wedge((v1_group_6 X2 X0 X1)\wedge(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 \\ & (u1_struct_0 X0) (u1_struct_0 X1))))))))))\Rightarrow((v8_struct_0 (k10_group_6 \\ & X0 X1 X2))\wedge(v15_algstr_0 (k10_group_6 X0 X1 X2))) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0)\wedge((v2_group_1 X0)\wedge(l3_algstr_0 \\ & X0)))\Rightarrow(\forall X1.(m1_group_2 X1 X0)\Rightarrow((\neg v2_struct_0 X1)\wedge((v2_group_1 \\ & X1)\wedge(l3_algstr_0 X1)))) \end{aligned} \quad (6)$$

Assume the following.

$$\forall X0.(l3_algstr_0 X0)\Rightarrow(l1_struct_0 X0) \quad (7)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.(((\neg v2_struct_0 X0)\wedge((v2_group_1 \\ & X0)\wedge((v3_group_1 X0)\wedge(l3_algstr_0 X0))))\wedge(((\neg v2_struct_0 X1)\wedge \\ & ((v2_group_1 X1)\wedge((v3_group_1 X1)\wedge(l3_algstr_0 X1))))\wedge((v1_funct_1 \\ & X2)\wedge((v1_funct_2 X2 (u1_struct_0 X0) (u1_struct_0 X1))\wedge((v1_group_6 \\ & X2 X0 X1)\wedge(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 \\ & X0) (u1_struct_0 X1))))))))))\Rightarrow((v15_algstr_0 (k10_group_6 X0 \\ & X1 X2))\wedge(m1_group_2 (k10_group_6 X0 X1 X2) X1)) \end{aligned} \quad (8)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0)\wedge((v2_group_1 X0)\wedge((v3_group_1 \\ & X0)\wedge(l3_algstr_0 X0))))\Rightarrow(\forall X1.((\neg v2_struct_0 X1)\wedge((v2_group_1 \\ & X1)\wedge((v3_group_1 X1)\wedge(l3_algstr_0 X1))))\Rightarrow((r1_group_6 X0 X1)\Leftrightarrow \\ & (\exists X2.((v1_funct_1 X2)\wedge((v1_funct_2 X2 (u1_struct_0 X0) \\ & (u1_struct_0 X1))\wedge((v1_group_6 X2 X0 X1)\wedge(m1_subset_1 X2 (k1_zfmisc_1 \\ & (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X1))))))))\wedge(v3_funct_2 \\ & X2 (u1_struct_0 X0) (u1_struct_0 X1)))) \end{aligned} \quad (9)$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0)\wedge((v2_group_1 X0)\wedge((v3_group_1 \\ & X0)\wedge(l3_algstr_0 X0))))\Rightarrow(\forall X1.((\neg v2_struct_0 X1)\wedge((v2_group_1 \\ & X1)\wedge((v3_group_1 X1)\wedge(l3_algstr_0 X1))))\Rightarrow(((r1_group_6 X0 X1)\wedge \\ & (v8_struct_0 X0))\Rightarrow(v8_struct_0 X1)) \end{aligned}$$