

t6_autgroup
(TMdLFQm9ycqcYvz9Ns8Vi4sK3LHXfGXQFvP)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v15_algstr_0 : \iota \Rightarrow o$ 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 $m2_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k1_autgroup : \iota \Rightarrow \iota$ be given. Let $k2_funct_1 : \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ 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 $v1_group_6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ be given. Let $v2_funct_1 : \iota \Rightarrow o$ be given. Let $v2_funct_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (\neg v1_xboole_0 X1) \Rightarrow (\forall X2. ((v1_funct_1 \\ & X2) \wedge ((v1_funct_2 X2 X0 X1) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 \\ & X0 X1)))))) \Rightarrow (\forall X3. ((v1_funct_1 X3) \wedge ((v1_funct_2 X3 X1 X0) \wedge \\ & (m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 X1 X0)))))) \Rightarrow (((v3_funct_2 \\ & X2 X0 X1) \wedge (X3 = k2_funct_1 X2)) \Rightarrow (v3_funct_2 X3 X1 X0))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v15_algstr_0 X0) \wedge ((v2_group_1 \\ & X0) \wedge ((v3_group_1 X0) \wedge (l3_algstr_0 X0)))))) \Rightarrow (\forall X1. (m2_funct_2 \\ & X1 (u1_struct_0 X0) (u1_struct_0 X0) (k1_autgroup X0)) \Rightarrow ((v1_funct_1 \\ & (k2_funct_1 X1)) \wedge ((v1_funct_2 (k2_funct_1 X1) (u1_struct_0 X0) \\ & (u1_struct_0 X0)) \wedge ((v1_group_6 (k2_funct_1 X1) X0 X0) \wedge (m1_subset_1 \\ & (k2_funct_1 X1) (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 \\ & X0)))))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge ((v15_algstr_0 X0) \wedge ((v2_group_1 \\ X0) \wedge ((v3_group_1 X0) \wedge (l3_algstr_0 X0)))))) \Rightarrow (\forall X1.((v1_funct_1 \\ X1) \wedge ((v1_funct_2 X1 (u1_struct_0 X0) (u1_struct_0 X0)) \wedge ((v1_group_6 \\ X1 X0 X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 \\ X0) (u1_struct_0 X0)))))) \Rightarrow ((X1 \in k1_autgroup X0) \Leftrightarrow (v3_funct_2 \\ X1 (u1_struct_0 X0) (u1_struct_0 X0)))) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X0 X1) \Rightarrow ((v1_xboole_0 X1) \vee (X0 \in X1)) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. (X0 \in X1) \Rightarrow (m1_subset_1 X0 X1) \quad (5)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((\neg v1_xboole_0 X1) \wedge (m1_funct_2 \\ X2 X0 X1)) \Rightarrow (\forall X3. (m2_funct_2 X3 X0 X1 X2) \Leftrightarrow (m1_subset_1 X3 \\ X2)) \quad (6)$$

Assume the following.

$$\forall X0. ((\neg v2_struct_0 X0) \wedge (l1_struct_0 X0)) \Rightarrow (\neg v1_xboole_0 \\ (u1_struct_0 X0)) \quad (7)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (m1_funct_2 X2 X0 X1) \Rightarrow (\neg v1_xboole_0 \\ X2) \quad (8)$$

Assume the following.

$$\forall X0. (l3_algstr_0 X0) \Rightarrow (l1_struct_0 X0) \quad (9)$$

Assume the following.

$$\forall X0. ((\neg v2_struct_0 X0) \wedge ((v15_algstr_0 X0) \wedge ((v2_group_1 \\ X0) \wedge ((v3_group_1 X0) \wedge (l3_algstr_0 X0)))))) \Rightarrow (m1_funct_2 (k1_autgroup \\ X0) (u1_struct_0 X0) (u1_struct_0 X0)) \quad (10)$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v15_algstr_0 X0) \wedge ((v2_group_1 \\
& X0) \wedge ((v3_group_1 X0) \wedge (l3_algstr_0 X0)))))) \Rightarrow (\forall X1.(m1_funct_2 \\
& X1 (u1_struct_0 X0) (u1_struct_0 X0)) \Rightarrow ((X1 = k1_autgroup X0) \Leftrightarrow (\\
& (\forall X2.(m2_funct_2 X2 (u1_struct_0 X0) (u1_struct_0 X0) X1) \Rightarrow \\
& ((v1_funct_1 X2) \wedge ((v1_funct_2 X2 (u1_struct_0 X0) (u1_struct_0 \\
& X0)) \wedge ((v1_group_6 X2 X0 X0) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 \\
& (u1_struct_0 X0) (u1_struct_0 X0)))))))))) \wedge (\forall X2.((v1_funct_1 \\
& X2) \wedge ((v1_funct_2 X2 (u1_struct_0 X0) (u1_struct_0 X0)) \wedge ((v1_group_6 \\
& X2 X0 X0) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 \\
& X0) (u1_struct_0 X0))))))) \Rightarrow ((X2 \in X1) \Leftrightarrow ((v2_funct_1 X2) \wedge (v2_funct_2 \\
& X2 (u1_struct_0 X0))))))
\end{aligned} \tag{11}$$

Theorem 1

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v15_algstr_0 X0) \wedge ((v2_group_1 \\
& X0) \wedge ((v3_group_1 X0) \wedge (l3_algstr_0 X0)))))) \Rightarrow (\forall X1.(m2_funct_2 \\
& X1 (u1_struct_0 X0) (u1_struct_0 X0) (k1_autgroup X0)) \Rightarrow (m2_funct_2 \\
& (k2_funct_1 X1) (u1_struct_0 X0) (u1_struct_0 X0) (k1_autgroup \\
& X0)))
\end{aligned}$$