

t44_group_3 (TMb- meAFS13JJPKDRAnW3y6GiEf79PH5ZYLG)

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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 $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k4_group_3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_group_3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_group_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_group_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k6_domain_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 \\ X0) \wedge (l3_algstr_0 X0)))) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 \\ (u1_struct_0 X0))) \Rightarrow (\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 \\ (u1_struct_0 X0))) \Rightarrow (\forall X3.(m1_subset_1 X3 (k1_zfmisc_1 \\ (u1_struct_0 X0))) \Rightarrow (k3_group_3 X0 (k3_group_3 X0 X1 X2) X3 = k3_group_3 \\ X0 X1 (k2_group_2 X0 X2 X3)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0) \wedge (l1_struct_0 X0)) \Rightarrow (\neg v1_xboole_0 \\ (u1_struct_0 X0)) \quad (2)$$

Assume the following.

$$\forall X0.(l3_algstr_0 X0) \Rightarrow (l1_struct_0 X0) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1_xboole_0 X0) \wedge (m1_subset_1 X1 X0)) \Rightarrow \\ (m1_subset_1 (k6_domain_1 X0 X1) (k1_zfmisc_1 X0)) \quad (4)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.\forall X2.(((\neg v2_struct_0 X0) \wedge ((v2_group_1 \\ X0) \wedge ((v3_group_1 X0) \wedge (l3_algstr_0 X0)))) \wedge ((m1_subset_1 X1 (\\ k1_zfmisc_1 (u1_struct_0 X0))) \wedge (m1_subset_1 X2 (k1_zfmisc_1 \\ (u1_struct_0 X0)))))) \Rightarrow (m1_subset_1 (k3_group_3 X0 X1 X2) (k1_zfmisc_1 \\ (u1_struct_0 X0))) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 \\ & X0) \wedge (l3_algstr_0 X0)))) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 \\ & (u1_struct_0 X0))) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 \\ & X0)) \Rightarrow (k4_group_3 X0 X1 X2 = k3_group_3 X0 X1 (k6_domain_1 (u1_struct_0 \\ & X0) X2)))) \end{aligned} \tag{6}$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge (l3_algstr_0 X0)) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 \\ & (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow (k5_group_2 X0 X1 X2 = k2_group_2 \\ & X0 X2 (k6_domain_1 (u1_struct_0 X0) X1)))) \end{aligned} \tag{7}$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 \\ & X0) \wedge (l3_algstr_0 X0)))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 \\ & X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow \\ & (\forall X3.(m1_subset_1 X3 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow \\ & (k4_group_3 X0 (k3_group_3 X0 X2 X3) X1 = k3_group_3 X0 X2 (k5_group_2 \\ & X0 X1 X3)))))) \end{aligned}$$