

t107_group_3 (TM- bowoQKRLnY3knWzxU8KPnNSA1adJspH2P)

October 27, 2020

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 $v15_algstr_0 : \iota \Rightarrow o$ be given. Let $m1_group_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k9_group_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r6_group_3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r5_group_3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k1_group_3 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (((\neg v2_struct_0 X0) \wedge ((v2_group_1 \\ & X0) \wedge ((v3_group_1 X0) \wedge (l3_algstr_0 X0)))) \wedge (((v15_algstr_0 X1) \wedge \\ & (m1_group_2 X1 X0)) \wedge ((v15_algstr_0 X2) \wedge (m1_group_2 X2 X0)))) \Rightarrow \\ & ((r6_group_3 X0 X1 X2) \Rightarrow (r6_group_3 X0 X2 X1)) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (((\neg v2_struct_0 X0) \wedge ((v2_group_1 \\ & X0) \wedge ((v3_group_1 X0) \wedge (l3_algstr_0 X0)))) \wedge (((v15_algstr_0 X1) \wedge \\ & (m1_group_2 X1 X0)) \wedge ((v15_algstr_0 X2) \wedge (m1_group_2 X2 X0)))) \Rightarrow \\ & ((r6_group_3 X0 X1 X2) \Leftrightarrow (r5_group_3 X0 X1 X2)) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge \\ & ((v3_group_1 X0) \wedge (l3_algstr_0 X0)))) \wedge (m1_group_2 X1 X0)) \Rightarrow (m1_subset_1 \\ & (k9_group_3 X0 X1) (k1_zfmisc_1 (k1_group_3 X0))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0. (((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 \\ & X0) \wedge (l3_algstr_0 X0)))) \Rightarrow (\forall X1. (m1_group_2 X1 X0) \Rightarrow (\forall X2. \\ & (m1_subset_1 X2 (k1_zfmisc_1 (k1_group_3 X0))) \Rightarrow ((X2 = k9_group_3 \\ & X0 X1) \Leftrightarrow (\forall X3. (X3 \in X2) \Leftrightarrow (\exists X4. ((v15_algstr_0 X4) \wedge \\ & m1_group_2 X4 X0)) \wedge ((X3 = X4) \wedge (r5_group_3 X0 X1 X4))))))) \end{aligned} \quad (4)$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 \\ & X0) \wedge (l3_algstr_0 X0)))) \Rightarrow (\forall X1.((v15_algstr_0 X1) \wedge (m1_group_2 \\ & X1 X0)) \Rightarrow (\forall X2.((v15_algstr_0 X2) \wedge (m1_group_2 X2 X0)) \Rightarrow (\\ & (X1 \in k9_group_3 X0 X2) \Leftrightarrow (r6_group_3 X0 X1 X2)))) \end{aligned}$$