

t59_group_5 (TMFGmi- jrfnDTEcw6LqUBNqcuyy5yEpUwqZw)

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 $v5_group_1 : \iota \Rightarrow o$ be given. Let $k6_group_5 : \iota \Rightarrow \iota$ be given. Let $k6_domain_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k1_group_1 : \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k2_group_5 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_group_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_group_5 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $v15_algstr_0 : \iota \Rightarrow o$ be given. Let $k7_group_2 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. \neg (X0 \in X1) \wedge ((m1_subset_1 X1 (k1_zfmisc_1 X2)) \wedge (v1_xboole_0 X2)) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. ((\neg v2_struct_0 X1) \wedge ((v2_group_1 X1) \wedge (v3_group_1 X1) \wedge (l3_algstr_0 X1))) \Rightarrow ((X0 \in k6_group_5 X1) \Leftrightarrow (\exists X2. (m1_subset_1 X2 (u1_struct_0 X1)) \wedge (\exists X3. (m1_subset_1 X3 (u1_struct_0 X1)) \wedge (X0 = k2_group_5 X1 X2 X3)))) \quad (2)$$

Assume the following.

$$\forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 X0) \wedge (l3_algstr_0 X0)))) \Rightarrow (((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 X0) \wedge (v5_group_1 X0) \wedge (l3_algstr_0 X0)))) \Leftrightarrow (\forall X1. (m1_group_2 X1 X0) \Rightarrow (\forall X2. (m1_group_2 X2 X0) \Rightarrow (k5_group_5 X0 X1 X2 = k6_domain_1 (u1_struct_0 X0) (k1_group_1 X0)))))) \quad (3)$$

Assume the following.

$$\forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 X0) \wedge (l3_algstr_0 X0)))) \Rightarrow (\forall X1. (m1_group_2 X1 X0) \Rightarrow (\forall X2. (m1_group_2 X2 X0) \Rightarrow (k1_group_1 X0 \in k5_group_5 X0 X1 X2))) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.(r1_tarski (k1_tarski X0) (k1_tarski X1))\Rightarrow (X0 = X1) \quad (5)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0)\wedge((v2_group_1 X0)\wedge((v3_group_1 \\ X0)\wedge(l3_algstr_0 X0))))\Rightarrow(((\neg v2_struct_0 X0)\wedge((v2_group_1 X0)\wedge \\ ((v3_group_1 X0)\wedge((v5_group_1 X0)\wedge(l3_algstr_0 X0))))\Leftrightarrow(\forall X1. \\ (m1_subset_1 X1 (u1_struct_0 X0))\Rightarrow(\forall X2.(m1_subset_1 X2 \\ (u1_struct_0 X0))\Rightarrow(k2_group_5 X0 X1 X2 = k1_group_1 X0)))) \quad (6) \end{aligned}$$

Assume the following.

$$\forall X0.\forall X1.(r1_tarski (k1_tarski X0) X1)\Leftrightarrow(X0 \in X1) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.(m1_subset_1 X0 X1)\Rightarrow((v1_xboole_0 X1)\vee (X0 \in X1)) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1_xboole_0 X0)\wedge(m1_subset_1 X1 X0))\Rightarrow (k6_domain_1 X0 X1 = k1_tarski X1) \quad (9)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0)\wedge((v2_group_1 X0)\wedge((v3_group_1 \\ X0)\wedge(l3_algstr_0 X0))))\Rightarrow((v15_algstr_0 (k7_group_2 X0))\wedge(m1_group_2 \\ (k7_group_2 X0) X0)) \quad (10) \end{aligned}$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0)\wedge((v2_group_1 X0)\wedge((v3_group_1 \\ X0)\wedge(l3_algstr_0 X0))))\Rightarrow(m1_subset_1 (k6_group_5 X0) (k1_zfmisc_1 \\ (u1_struct_0 X0))) \quad (11) \end{aligned}$$

Assume the following.

$$\forall X0.(l3_algstr_0 X0)\Rightarrow(m1_subset_1 (k1_group_1 X0) (u1_struct_0 X0)) \quad (12)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0)\wedge((v2_group_1 X0)\wedge((v3_group_1 \\ X0)\wedge(l3_algstr_0 X0))))\Rightarrow(k6_group_5 X0 = k5_group_5 X0 (k7_group_2 \\ X0) (k7_group_2 X0)) \quad (13) \end{aligned}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v1_xboole_0 X0) \Rightarrow ((m1_subset_1 X1 X0) \Leftrightarrow \\ & (X1 \in X0))) \wedge ((v1_xboole_0 X0) \Rightarrow ((m1_subset_1 X1 X0) \Leftrightarrow (v1_xboole_0 \\ & X1))) \end{aligned} \tag{14}$$

Theorem 1

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 \\ & X0) \wedge (l3_algstr_0 X0)))) \Rightarrow (((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge \\ & ((v3_group_1 X0) \wedge ((v5_group_1 X0) \wedge (l3_algstr_0 X0)))))) \Leftrightarrow (k6_group_5 \\ & X0 = k6_domain_1 (u1_struct_0 X0) (k1_group_1 X0)) \end{aligned}$$