

t22_group_2

(TMF2DTh8cGkEpsga1UdtTUZoR1HA1tETrzF)

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 $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k6_algstr_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_group_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_group_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_group_1 : \iota \Rightarrow \iota$ be given. Let $v1_group_1 : \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

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

Assume the following.

$$\forall X0. \forall X1. (((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 X0) \wedge (l3_algstr_0 X0)))) \wedge (m1_subset_1 X1 (u1_struct_0 X0))) \Rightarrow (k2_group_1 X0 (k2_group_1 X0 X1) = X1) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 X0) \wedge (l3_algstr_0 X0)))) \wedge (m1_subset_1 X1 (u1_struct_0 X0))) \Rightarrow (m1_subset_1 (k2_group_1 X0 X1) (u1_struct_0 X0)) \quad (3)$$

Assume the following.

$$\forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 X0) \wedge (l3_algstr_0 X0)))) \Rightarrow (\forall X1. (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow ((X2 = k2_group_1 X0 X1) \Leftrightarrow ((k6_algstr_0 X0 X1 X2 = k1_group_1 X0) \wedge (k6_algstr_0 X0 X2 X1 = k1_group_1 X0)))))) \quad (4)$$

Assume the following.

$$\forall X0. (l3_algstr_0 X0) \Rightarrow ((v1_group_1 X0) \Rightarrow (\forall X1. (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow ((X1 = k1_group_1 X0) \Leftrightarrow (\forall X2. (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow ((k6_algstr_0 X0 X2 X1 = X2) \wedge (k6_algstr_0 X0 X1 X2 = X2)))))) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.(r1_tarSKI X0 X1)\Leftrightarrow(\forall X2.(X2 \in X0)\Rightarrow (X2 \in X1)) \quad (6)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0)\wedge(l3_algstr_0 X0))\Rightarrow(\forall X1. \\ (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0)))\Rightarrow(\forall X2. \\ (m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 X0)))\Rightarrow(k2_group_2 \\ X0 X1 X2 = ReplSep2 (toset (\lambda X3 : \iota.m1_subset_1 X3 (u1_struct_0 \\ X0))) (\lambda X3 : \iota.toset (\lambda X4 : \iota.m1_subset_1 X4 (u1_struct_0 \\ X0))) (\lambda X3 : \iota.\lambda X4 : \iota.(X3 \in X1)\wedge(X4 \in X2)) (\lambda X3 : \iota. \\ \lambda X4 : \iota.k6_algstr_0 X0 X3 X4)))))) \end{aligned} \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.(X0 = X1)\Leftrightarrow((r1_tarSKI X0 X1)\wedge(r1_tarSKI X1 X0)) \quad (8)$$

Assume the following.

$$\forall X0.(l3_algstr_0 X0)\Rightarrow((v2_group_1 X0)\Rightarrow(v1_group_1 X0)) \quad (9)$$

Theorem 1

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0)\wedge((v2_group_1 X0)\wedge((v3_group_1 \\ X0)\wedge(l3_algstr_0 X0))))\Rightarrow(\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 \\ (u1_struct_0 X0)))\Rightarrow((\forall X2.(m1_subset_1 X2 (u1_struct_0 \\ X0))\Rightarrow(\forall X3.(m1_subset_1 X3 (u1_struct_0 X0))\Rightarrow(((X2 \in X1)\wedge \\ (X3 \in X1))\Rightarrow(k6_algstr_0 X0 X2 X3 \in X1)))))\wedge(\forall X2.(m1_subset_1 \\ X2 (u1_struct_0 X0))\Rightarrow((X2 \in X1)\Rightarrow(k2_group_1 X0 X2 \in X1))))\Rightarrow(k2_group_2 \\ X0 X1 X1 = X1))) \end{aligned}$$