

t7_gr_cy_2

(TMTFqGKBBfT_v1GjCo7Q26tqitCoJqPt1W8F)

October 27, 2020

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 $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $v8_struct_0 : \iota \Rightarrow o$ be given. Let $k5_group_4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_domain_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_group_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $r1_group_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_group_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_gr_cy_1 : \iota \Rightarrow o$ be given. Let $g3_algstr_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u2_algstr_0 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} \forall X0. (&(\neg v2_struct_0 X0) \wedge ((v8_struct_0 X0) \wedge ((v15_algstr_0 \\ &X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 X0) \wedge (l3_algstr_0 X0)))))) \Rightarrow \\ &(\forall X1. (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow ((\forall X2. (\\ &m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\exists X3. (m1_subset_1 X3 \\ &k5_numbers) \wedge (X2 = k5_group_1 X0 X3 X1))) \Leftrightarrow (X0 = k5_group_4 X0 (k6_domain_1 \\ &(u1_struct_0 X0) X1)))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} \forall X0. (&(\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge (l3_algstr_0 \\ &X0))) \Rightarrow (\forall X1. (m1_group_2 X1 X0) \Rightarrow (\forall X2. (m1_subset_1 \\ &X2 (u1_struct_0 X1)) \Rightarrow (m1_subset_1 X2 (u1_struct_0 X0)))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} \forall X0. (&(\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 \\ &X0) \wedge (l3_algstr_0 X0)))) \Rightarrow (\forall X1. (m1_group_2 X1 X0) \Rightarrow (\forall X2. \\ &(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3. (m1_subset_1 X3 \\ &(u1_struct_0 X1)) \Rightarrow ((X2 = X3) \Rightarrow (k5_group_4 X0 (k6_domain_1 (u1_struct_0 \\ &X0) X2) = k5_group_4 X1 (k6_domain_1 (u1_struct_0 X1) X3)))))) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} \forall X0. (&(\neg v2_struct_0 X0) \wedge ((v8_struct_0 X0) \wedge ((v2_group_1 \\ &X0) \wedge ((v3_group_1 X0) \wedge (l3_algstr_0 X0)))))) \Rightarrow (\forall X1. ((v15_algstr_0 \\ &X1) \wedge (m1_group_2 X1 X0)) \Rightarrow ((v1_gr_cy_1 X0) \Rightarrow (v1_gr_cy_1 X1))) \end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.\forall X2.(((\neg v2_struct_0 X0)\wedge((v2_group_1 \\ X0)\wedge((v3_group_1 X0)\wedge(l3_algstr_0 X0))))\wedge(((v15_algstr_0 X1)\wedge \\ (m1_group_2 X1 X0))\wedge((v15_algstr_0 X2)\wedge(m1_group_2 X2 X0))))\Rightarrow \\ (r1_group_2 X0 X1 X1) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0)\wedge((v2_group_1 X0)\wedge(l3_algstr_0 \\ X0)))\Rightarrow(\forall X1.(m1_group_2 X1 X0)\Rightarrow((\neg v2_struct_0 X1)\wedge((v2_group_1 \\ X1)\wedge(l3_algstr_0 X1)))) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0)\wedge((v2_group_1 X0)\wedge((v3_group_1 \\ X0)\wedge(l3_algstr_0 X0))))\Rightarrow((v1_gr_cy_1 X0)\Leftrightarrow(\exists X1.(m1_subset_1 \\ X1 (u1_struct_0 X0))\wedge(g3_algstr_0 (u1_struct_0 X0) (u2_algstr_0 \\ X0) = k5_group_4 X0 (k6_domain_1 (u1_struct_0 X0) X1)))) \end{aligned} \quad (7)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0)\wedge((v2_group_1 X0)\wedge((v3_group_1 \\ X0)\wedge(l3_algstr_0 X0))))\Rightarrow(\forall X1.(m1_group_2 X1 X0)\Rightarrow(v3_group_1 \\ X1)) \end{aligned} \quad (8)$$

Assume the following.

$$\begin{aligned} \forall X0.(l3_algstr_0 X0)\Rightarrow((v15_algstr_0 X0)\Rightarrow(X0 = g3_algstr_0 \\ (u1_struct_0 X0) (u2_algstr_0 X0))) \end{aligned} \quad (9)$$

Theorem 1

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0)\wedge((v15_algstr_0 X0)\wedge((v2_group_1 \\ X0)\wedge((v3_group_1 X0)\wedge(l3_algstr_0 X0))))\Rightarrow(\forall X1.(m1_subset_1 \\ X1 (u1_struct_0 X0))\Rightarrow(((v8_struct_0 X0)\wedge(X0 = k5_group_4 X0 (k6_domain_1 \\ (u1_struct_0 X0) X1)))\Rightarrow(\forall X2.((v15_algstr_0 X2)\wedge(m1_group_2 \\ X2 X0))\Rightarrow(\exists X3.(m1_subset_1 X3 k5_numbers)\wedge(r1_group_2 \\ X0 X2 (k5_group_4 X0 (k6_domain_1 (u1_struct_0 X0) (k5_group_1 \\ X0 X3 X1)))))))))) \end{aligned}$$