

t6_group_11

(TMY39WPhW8qYB89kiXjL4LFyi2FcquMqE6y)

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 $m1_group_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k7_group_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_algstr_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_struct_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v2_struct_0 X1) \wedge ((v2_group_1 X1) \wedge (\\ & \quad (v3_group_1 X1) \wedge (l3_algstr_0 X1)))) \Rightarrow (\forall X2. (m1_group_2 \\ & X2 X1) \Rightarrow (\forall X3. (m1_group_2 X3 X1) \Rightarrow ((X0 \in k7_group_4 X1 X2 X3) \Leftrightarrow \\ & \quad (\exists X4. (m1_subset_1 X4 (u1_struct_0 X1)) \wedge (\exists X5. (m1_subset_1 \\ & \quad X5 (u1_struct_0 X1)) \wedge ((X0 = k6_algstr_0 X1 X4 X5) \wedge ((r1_struct_0 \\ & \quad X2 X4) \wedge (r1_struct_0 X3 X5)))))))))) \end{aligned} \tag{1}$$

Theorem 1

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 \\ & \quad X0) \wedge (l3_algstr_0 X0)))) \Rightarrow (\forall X1. (m1_group_2 X1 X0) \Rightarrow (\forall X2. \\ & \quad (m1_group_2 X2 X0) \Rightarrow (\forall X3. (m1_subset_1 X3 (u1_struct_0 X0)) \Rightarrow \\ & \quad ((X3 \in k7_group_4 X0 X1 X2) \Leftrightarrow (\exists X4. (m1_subset_1 X4 (u1_struct_0 \\ & \quad X0)) \wedge (\exists X5. (m1_subset_1 X5 (u1_struct_0 X0)) \wedge ((X3 = k6_algstr_0 \\ & \quad X0 X4 X5) \wedge ((r1_struct_0 X1 X4) \wedge (r1_struct_0 X2 X5)))))))))) \end{aligned}$$