

l30_hahnban

(TMLNCyfBDeSf5vaH7aqXqQgg2zHn4JrAW7Y)

October 27, 2020

Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v13_algstr_0 : \iota \Rightarrow o$ be given. Let $v2_rlvect_1 : \iota \Rightarrow o$ be given. Let $v3_rlvect_1 : \iota \Rightarrow o$ be given. Let $v4_rlvect_1 : \iota \Rightarrow o$ be given. Let $v5_rlvect_1 : \iota \Rightarrow o$ be given. Let $v6_rlvect_1 : \iota \Rightarrow o$ be given. Let $v7_rlvect_1 : \iota \Rightarrow o$ be given. Let $v8_rlvect_1 : \iota \Rightarrow o$ be given. Let $l1_rlvect_1 : \iota \Rightarrow o$ be given. Let $g1_rlvect_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $u2_struct_0 : \iota \Rightarrow \iota$ be given. Let $u1_algstr_0 : \iota \Rightarrow \iota$ be given. Let $u1_rlvect_1 : \iota \Rightarrow \iota$ be given. Let $m1_rlsub_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_rlvect_1 : \iota \Rightarrow o$ be given. Let $k2_rlsub_1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} \forall X0. (&(\neg v2_struct_0 X0) \wedge (v13_algstr_0 X0) \wedge (v2_rlvect_1 \\ &X0) \wedge (v3_rlvect_1 X0) \wedge (v4_rlvect_1 X0) \wedge (v5_rlvect_1 X0) \wedge \\ &((v6_rlvect_1 X0) \wedge (v7_rlvect_1 X0) \wedge (v8_rlvect_1 X0) \wedge (l1_rlvect_1 \\ &X0)))))) \Rightarrow (\forall X1. (m1_rlsub_1 X1 X0) \Rightarrow ((\neg v2_struct_0 \\ &X1) \wedge (v13_algstr_0 X1) \wedge (v2_rlvect_1 X1) \wedge (v3_rlvect_1 X1) \wedge \\ &((v4_rlvect_1 X1) \wedge (v5_rlvect_1 X1) \wedge (v6_rlvect_1 X1) \wedge (v7_rlvect_1 \\ &X1) \wedge (v8_rlvect_1 X1) \wedge (l1_rlvect_1 X1)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0. (&(\neg v2_struct_0 X0) \wedge (v13_algstr_0 X0) \wedge (v2_rlvect_1 \\ &X0) \wedge (v3_rlvect_1 X0) \wedge (v4_rlvect_1 X0) \wedge (v5_rlvect_1 X0) \wedge \\ &((v6_rlvect_1 X0) \wedge (v7_rlvect_1 X0) \wedge (v8_rlvect_1 X0) \wedge (l1_rlvect_1 \\ &X0)))))) \Rightarrow ((v1_rlvect_1 (k2_rlsub_1 X0)) \wedge (m1_rlsub_1 (k2_rlsub_1 \\ &X0) X0)) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0. (&(\neg v2_struct_0 X0) \wedge (v13_algstr_0 X0) \wedge (v2_rlvect_1 \\ &X0) \wedge (v3_rlvect_1 X0) \wedge (v4_rlvect_1 X0) \wedge (v5_rlvect_1 X0) \wedge \\ &((v6_rlvect_1 X0) \wedge (v7_rlvect_1 X0) \wedge (v8_rlvect_1 X0) \wedge (l1_rlvect_1 \\ &X0)))))) \Rightarrow (k2_rlsub_1 X0 = g1_rlvect_1 (u1_struct_0 X0) (u2_struct_0 \\ &X0) (u1_algstr_0 X0) (u1_rlvect_1 X0)) \end{aligned} \quad (3)$$

Theorem 1

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge (v13_algstr_0 X0) \wedge (v2_rlvect_1 \\ & X0) \wedge (v3_rlvect_1 X0) \wedge (v4_rlvect_1 X0) \wedge (v5_rlvect_1 X0) \wedge \\ & ((v6_rlvect_1 X0) \wedge (v7_rlvect_1 X0) \wedge (v8_rlvect_1 X0) \wedge (l1_rlvect_1 \\ & X0)))))) \Rightarrow ((\neg v2_struct_0 (g1_rlvect_1 (u1_struct_0 X0) (\\ & u2_struct_0 X0) (u1_algstr_0 X0) (u1_rlvect_1 X0))) \wedge (v13_algstr_0 \\ & (g1_rlvect_1 (u1_struct_0 X0) (u2_struct_0 X0) (u1_algstr_0 X0) \\ & (u1_rlvect_1 X0))) \wedge (v2_rlvect_1 (g1_rlvect_1 (u1_struct_0 \\ & X0) (u2_struct_0 X0) (u1_algstr_0 X0) (u1_rlvect_1 X0))) \wedge (v3_rlvect_1 \\ & (g1_rlvect_1 (u1_struct_0 X0) (u2_struct_0 X0) (u1_algstr_0 X0) \\ & (u1_rlvect_1 X0))) \wedge (v4_rlvect_1 (g1_rlvect_1 (u1_struct_0 \\ & X0) (u2_struct_0 X0) (u1_algstr_0 X0) (u1_rlvect_1 X0))) \wedge (v5_rlvect_1 \\ & (g1_rlvect_1 (u1_struct_0 X0) (u2_struct_0 X0) (u1_algstr_0 X0) \\ & (u1_rlvect_1 X0))) \wedge (v6_rlvect_1 (g1_rlvect_1 (u1_struct_0 \\ & X0) (u2_struct_0 X0) (u1_algstr_0 X0) (u1_rlvect_1 X0))) \wedge (v7_rlvect_1 \\ & (g1_rlvect_1 (u1_struct_0 X0) (u2_struct_0 X0) (u1_algstr_0 X0) \\ & (u1_rlvect_1 X0))) \wedge (v8_rlvect_1 (g1_rlvect_1 (u1_struct_0 \\ & X0) (u2_struct_0 X0) (u1_algstr_0 X0) (u1_rlvect_1 X0))) \wedge (l1_rlvect_1 \\ & (g1_rlvect_1 (u1_struct_0 X0) (u2_struct_0 X0) (u1_algstr_0 X0) \\ & (u1_rlvect_1 X0))))))))) \end{aligned}$$