

t36_clopan4

(TMafU1U9xMLYVxE9ws8pfQBorgmq1MZht1z)

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 $v3_normsp_0 : \iota \Rightarrow o$ be given. Let $v4_normsp_0 : \iota \Rightarrow o$ be given. Let $v3_group_1 : \iota \Rightarrow o$ be given. Let $v1_vectsp_1 : \iota \Rightarrow o$ be given. Let $v3_vectsp_1 : \iota \Rightarrow o$ be given. Let $v2_clvect_1 : \iota \Rightarrow o$ be given. Let $v3_clvect_1 : \iota \Rightarrow o$ be given. Let $v4_clvect_1 : \iota \Rightarrow o$ be given. Let $v5_clvect_1 : \iota \Rightarrow o$ be given. Let $v8_clvect_1 : \iota \Rightarrow o$ be given. Let $v2_cfunclom : \iota \Rightarrow o$ be given. Let $v5_clopan2 : \iota \Rightarrow o$ be given. Let $l1_clopan2 : \iota \Rightarrow o$ be given. Let $k7_clopan4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_struct_0 : \iota \Rightarrow \iota$ be given. Let $k5_struct_0 : \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k1_clopan3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_clopan4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2_clopan3 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l2_normsp_0 : \iota \Rightarrow o$ be given. Let $l1_normsp_0 : \iota \Rightarrow o$ be given. Let $l2_struct_0 : \iota \Rightarrow o$ be given. Let $l2_clvect_1 : \iota \Rightarrow o$ be given. Let $l1_clvect_1 : \iota \Rightarrow o$ be given. Let $l1_cfunclom : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 \\ & X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v3_normsp_0 X0) \wedge \\ & ((v4_normsp_0 X0) \wedge ((v3_group_1 X0) \wedge ((v1_vectsp_1 X0) \wedge ((v3_vectsp_1 \\ & X0) \wedge ((v2_clvect_1 X0) \wedge ((v3_clvect_1 X0) \wedge ((v4_clvect_1 X0) \wedge \\ & ((v5_clvect_1 X0) \wedge ((v8_clvect_1 X0) \wedge ((v2_cfunclom X0) \wedge ((v5_clopan2 \\ & X0) \wedge (l1_clopan2 X0)))))))))))))) \Rightarrow (\forall X1. (m1_subset_1 \\ & X1 (u1_struct_0 X0)) \Rightarrow (k7_clopan4 X0 X1 = k1_clopan3 X0 (k1_clopan4 \\ & X0 X1))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} \forall X0. (& \neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 \\ & X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v3_normsp_0 X0) \wedge \\ & ((v4_normsp_0 X0) \wedge ((v3_group_1 X0) \wedge ((v1_vectsp_1 X0) \wedge ((v3_vectsp_1 \\ & X0) \wedge ((v2_clvect_1 X0) \wedge ((v3_clvect_1 X0) \wedge ((v4_clvect_1 X0) \wedge \\ & ((v5_clvect_1 X0) \wedge ((v8_clvect_1 X0) \wedge ((v2_cfunclom X0) \wedge ((v5_clopan2 \\ & X0) \wedge (l1_clopan2 X0)))))))))))))) \Rightarrow ((v2_clopan3 (k1_clopan4 \\ & X0 (k4_struct_0 X0)) X0) \wedge (k1_clopan3 X0 (k1_clopan4 X0 (k4_struct_0 \\ & X0)) = k5_struct_0 X0)) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0. (l2_normsp_0 X0) \Rightarrow ((l1_normsp_0 X0) \wedge (l2_struct_0 X0)) \quad (3)$$

Assume the following.

$$\forall X0. (l2_clvect_1 X0) \Rightarrow ((l1_clvect_1 X0) \wedge (l2_normsp_0 X0)) \quad (4)$$

Assume the following.

$$\forall X0. (l1_clopan2 X0) \Rightarrow ((l1_cfunclom X0) \wedge (l2_clvect_1 X0)) \quad (5)$$

Assume the following.

$$\forall X0. (l2_struct_0 X0) \Rightarrow (m1_subset_1 (k4_struct_0 X0) (u1_struct_0 X0)) \quad (6)$$

Theorem 1

$$\begin{aligned} \forall X0. (& \neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 \\ & X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v3_normsp_0 X0) \wedge \\ & ((v4_normsp_0 X0) \wedge ((v3_group_1 X0) \wedge ((v1_vectsp_1 X0) \wedge ((v3_vectsp_1 \\ & X0) \wedge ((v2_clvect_1 X0) \wedge ((v3_clvect_1 X0) \wedge ((v4_clvect_1 X0) \wedge \\ & ((v5_clvect_1 X0) \wedge ((v8_clvect_1 X0) \wedge ((v2_cfunclom X0) \wedge ((v5_clopan2 \\ & X0) \wedge (l1_clopan2 X0)))))))))))))) \Rightarrow (k7_clopan4 X0 (k4_struct_0 \\ & X0) = k5_struct_0 X0) \end{aligned}$$