

l44_c0sp2

(TMdYqqhGJDZzZmv9Zdo4SSChWanavWf4JhD)

October 27, 2020

Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v2_pre_topc : \iota \Rightarrow o$ be given. Let $l1_pre_topc : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k12_funcsdom : \iota \Rightarrow \iota$ be given. Let $k6_c0sp2 : \iota \Rightarrow \iota$ be given. Let $k4_algstr_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ 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 $k1_rlvect_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_real_1 : \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k5_numbers : \iota$ be given. Let $v3_group_1 : \iota \Rightarrow o$ be given. Let $v5_group_1 : \iota \Rightarrow o$ be given. Let $v1_vectsp_1 : \iota \Rightarrow o$ be given. Let $v3_vectsp_1 : \iota \Rightarrow o$ be given. Let $v1_funcsdom : \iota \Rightarrow o$ be given. Let $v2_funcsdom : \iota \Rightarrow o$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0. (& \neg v1_xboole_0 X0) \Rightarrow ((\neg v2_struct_0 (k12_funcsdom X0)) \wedge \\ & ((v13_algstr_0 (k12_funcsdom X0)) \wedge (v2_rlvect_1 (k12_funcsdom \\ & X0)) \wedge (v3_rlvect_1 (k12_funcsdom X0)) \wedge (v4_rlvect_1 (k12_funcsdom \\ & X0)) \wedge (v5_rlvect_1 (k12_funcsdom X0)) \wedge (v6_rlvect_1 (k12_funcsdom \\ & X0)) \wedge (v7_rlvect_1 (k12_funcsdom X0)) \wedge (v8_rlvect_1 (k12_funcsdom \\ & X0)) \wedge (l1_rlvect_1 (k12_funcsdom X0)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0. (& (\neg v2_struct_0 X0) \wedge (v13_algstr_0 X0) \wedge (v2_rlvect_1 \\ & X0) \wedge (v3_rlvect_1 X0) \wedge (v4_rlvect_1 X0) \wedge (v5_rlvect_1 X0) \wedge \\ & ((v6_rlvect_1 X0) \wedge (v7_rlvect_1 X0) \wedge (v8_rlvect_1 X0) \wedge (l1_rlvect_1 \\ & X0)))))) \Rightarrow (\forall X1. (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow \\ & (k4_algstr_0 X0 X1 = k1_rlvect_1 X0 X1 (k1_real_1 np_1))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} ((v2_xxreal_0 np_1) \wedge (m2_subset_1 np_1 k1_numbers k5_numbers)) \wedge \\ ((m1_subset_1 np_1 k5_numbers) \wedge (m1_subset_1 np_1 k1_numbers)) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc \\ X0))) \Rightarrow (\forall X1.(m1_subset_1 X1 k1_numbers) \Rightarrow (\forall X2.(\\ m1_subset_1 X2 (u1_struct_0 (k12_funcsdom (u1_struct_0 X0)))) \Rightarrow \\ ((X2 \in k6_c0sp2 X0) \Rightarrow (k1_rlvect_1 (k12_funcsdom (u1_struct_0 X0)) \\ X2 X1 \in k6_c0sp2 X0)))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} \forall X0.(v13_algstr_0 (k12_funcsdom X0) \wedge ((v3_group_1 (k12_funcsdom \\ X0) \wedge ((v5_group_1 (k12_funcsdom X0) \wedge ((v1_vectsp_1 (k12_funcsdom \\ X0) \wedge ((v3_vectsp_1 (k12_funcsdom X0) \wedge ((v2_rlvect_1 (k12_funcsdom \\ X0) \wedge ((v3_rlvect_1 (k12_funcsdom X0) \wedge ((v4_rlvect_1 (k12_funcsdom \\ X0) \wedge ((v5_rlvect_1 (k12_funcsdom X0) \wedge ((v6_rlvect_1 (k12_funcsdom \\ X0) \wedge ((v7_rlvect_1 (k12_funcsdom X0) \wedge ((v1_funcsdom (k12_funcsdom \\ X0) \wedge (v2_funcsdom (k12_funcsdom X0)))))))))))))))))))))) \end{aligned} \quad (5)$$

Assume the following.

$$\forall X0.(\neg v2_struct_0 (k12_funcsdom X0) \wedge (v1_funcsdom (k12_funcsdom \\ X0))) \quad (6)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0) \wedge (l1_struct_0 X0)) \Rightarrow (\neg v1_xboole_0 \\ (u1_struct_0 X0)) \quad (7)$$

Assume the following.

$$\forall X0.(l1_pre_topc X0) \Rightarrow (l1_struct_0 X0) \quad (8)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (m1_subset_1 (k1_real_1 \\ X0) k1_numbers) \quad (9)$$

Theorem 1

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc \\ X0))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 (k12_funcsdom \\ (u1_struct_0 X0)))) \Rightarrow ((X1 \in k6_c0sp2 X0) \Rightarrow (k4_algstr_0 (k12_funcsdom \\ (u1_struct_0 X0)) X1 \in k6_c0sp2 X0))) \end{aligned}$$