

t48_afvect0

(TMMHEj1E55rvFCZjefqf4ycQp6XDAm1dK77)

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Let $v7_struct_0 : \iota \Rightarrow o$ be given. Let $v2_tdgroup : \iota \Rightarrow o$ be given. Let $l1_analoaf : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $k5_afvect0 : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $v12_vectsp_1 : \iota \Rightarrow o$ be given. Let $v1_tdgroup : \iota \Rightarrow o$ be given. Let $l2_algstr_0 : \iota \Rightarrow o$ be given. Let $v1_afvect0 : \iota \Rightarrow o$ be given. Let $u1_algstr_0 : \iota \Rightarrow \iota$ be given. Let $k3_afvect0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_struct_0 : \iota \Rightarrow \iota$ be given. Let $v8_algstr_0 : \iota \Rightarrow o$ be given. Let $l2_struct_0 : \iota \Rightarrow o$ be given. Let $l1_algstr_0 : \iota \Rightarrow o$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v7_struct_0 X0) \wedge ((v1_afvect0 X0) \wedge (l1_analoaf \\ & X0))) \Rightarrow (\forall X1. (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow ((u1_struct_0 \\ & (k5_afvect0 X0 X1) = u1_struct_0 X0) \wedge ((u1_algstr_0 (k5_afvect0 \\ & X0 X1) = k3_afvect0 X0 X1) \wedge (k4_struct_0 (k5_afvect0 X0 X1) = X1)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((\neg v7_struct_0 X0) \wedge ((v2_tdgroup X0) \wedge \\ & (l1_analoaf X0))) \wedge (m1_subset_1 X1 (u1_struct_0 X0))) \Rightarrow ((v8_algstr_0 \\ & (k5_afvect0 X0 X1)) \wedge (v12_vectsp_1 (k5_afvect0 X0 X1))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((\neg v7_struct_0 X0) \wedge ((v1_afvect0 X0) \wedge \\ & (l1_analoaf X0))) \wedge (m1_subset_1 X1 (u1_struct_0 X0))) \Rightarrow ((v8_algstr_0 \\ & (k5_afvect0 X0 X1)) \wedge (v1_tdgroup (k5_afvect0 X0 X1))) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.(((\neg v7_struct_0 X0)\wedge((v1_afvect0 X0)\wedge(l1_analoaf X0)))\wedge(m1_subset_1 X1 (u1_struct_0 X0)))\Rightarrow((v8_algstr_0(k5_afvect0 X0 X1))\wedge((v13_algstr_0(k5_afvect0 X0 X1))\wedge((v2_rlvect_1(k5_afvect0 X0 X1))\wedge((v3_rlvect_1(k5_afvect0 X0 X1))\wedge(v4_rlvect_1(k5_afvect0 X0 X1)))))))) \quad (4)$$

Assume the following.

$$\forall X0.(l2_algstr_0 X0)\Rightarrow((l2_struct_0 X0)\wedge(l1_algstr_0 X0)) \quad (5)$$

Assume the following.

$$\forall X0.(l1_analoaf X0)\Rightarrow(l1_struct_0 X0) \quad (6)$$

Assume the following.

$$\forall X0.(l1_algstr_0 X0)\Rightarrow(l1_struct_0 X0) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.(((\neg v7_struct_0 X0)\wedge((v1_afvect0 X0)\wedge(l1_analoaf X0)))\wedge(m1_subset_1 X1 (u1_struct_0 X0)))\Rightarrow((v8_algstr_0(k5_afvect0 X0 X1))\wedge(l2_algstr_0(k5_afvect0 X0 X1))) \quad (8)$$

Assume the following.

$$\forall X0.(l1_struct_0 X0)\Rightarrow((v7_struct_0 X0)\Leftrightarrow(\forall X1.(m1_subset_1 X1 (u1_struct_0 X0))\Rightarrow(\forall X2.(m1_subset_1 X2 (u1_struct_0 X0))\Rightarrow(X1 = X2)))) \quad (9)$$

Assume the following.

$$\forall X0.(l1_struct_0 X0)\Rightarrow((v2_struct_0 X0)\Rightarrow(v7_struct_0 X0)) \quad (10)$$

Assume the following.

$$\forall X0.(l1_analoaf X0)\Rightarrow(((\neg v2_struct_0 X0)\wedge(v2_tdgroup X0))\Rightarrow((\neg v2_struct_0 X0)\wedge(v1_afvect0 X0))) \quad (11)$$

Theorem 1

$$\forall X0.((\neg v7_struct_0 X0)\wedge((v2_tdgroup X0)\wedge(l1_analoaf X0)))\Rightarrow(\forall X1.(m1_subset_1 X1 (u1_struct_0 X0))\Rightarrow((\neg v2_struct_0(k5_afvect0 X0 X1))\wedge((\neg v7_struct_0(k5_afvect0 X0 X1))\wedge((v13_algstr_0(k5_afvect0 X0 X1))\wedge((v2_rlvect_1(k5_afvect0 X0 X1))\wedge((v3_rlvect_1(k5_afvect0 X0 X1))\wedge((v4_rlvect_1(k5_afvect0 X0 X1))\wedge((v12_vectsp_1(k5_afvect0 X0 X1))\wedge((v1_tdgroup(k5_afvect0 X0 X1))\wedge(l2_algstr_0(k5_afvect0 X0 X1))))))))))))))$$