

t31_complfld

(TMNJoyoXGCvpATcej2SebnZFDGg8YU6ave6)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k1_complfld : \iota$ be given. Let $k4_struct_0 : \iota \Rightarrow \iota$ be given. Let $k11_algstr_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_vectsp_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $k6_binop_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_binop_2 : \iota \Rightarrow \iota$ be given. Let $k5_xcmplx_0 : \iota \Rightarrow \iota$ be given. Let $k7_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v6_struct_0 : \iota \Rightarrow o$ be given. Let $v13_algstr_0 : \iota \Rightarrow o$ be given. Let $v33_algstr_0 : \iota \Rightarrow o$ be given. Let $v36_algstr_0 : \iota \Rightarrow o$ be given. Let $v3_group_1 : \iota \Rightarrow o$ be given. Let $v5_group_1 : \iota \Rightarrow o$ be given. Let $v3_vectsp_1 : \iota \Rightarrow o$ be given. Let $v5_vectsp_1 : \iota \Rightarrow o$ be given. Let $v6_vectsp_1 : \iota \Rightarrow o$ 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 $v4_vectsp_1 : \iota \Rightarrow o$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $l6_algstr_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 (u1_struct_0 k1_complfld)) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (u1_struct_0 k1_complfld)) \Rightarrow (\forall X2.(v1_xcmplx_0 \\ & X2) \Rightarrow (\forall X3.(v1_xcmplx_0 X3) \Rightarrow (((X0 = X2) \wedge (X1 = X3)) \Rightarrow ((X1 = \\ & k4_struct_0 k1_complfld) \vee (k3_vectsp_1 k1_complfld X0 X1 = k6_binop_2 \\ & X2 X3)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 (u1_struct_0 k1_complfld)) \Rightarrow (\forall X1. \\ & (v1_xcmplx_0 X1) \Rightarrow ((X0 = X1) \Rightarrow ((X0 = k4_struct_0 k1_complfld) \vee (\\ & k11_algstr_0 k1_complfld X0 = k2_binop_2 X1)))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 (u1_struct_0 k1_complfld)) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (u1_struct_0 k1_complfld)) \Rightarrow ((k3_vectsp_1 k1_complfld \\ & X1 X0 = k4_struct_0 k1_complfld) \Rightarrow ((X0 = k4_struct_0 k1_complfld) \vee \\ & (X1 = k4_struct_0 k1_complfld)))) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0.(v1_xcmplx_0 X0) \Rightarrow (\forall X1.(v1_xcmplx_0 X1) \Rightarrow (k5_xcmplx_0 \\ & (k7_xcmplx_0 X0 X1) = k7_xcmplx_0 X1 X0)) \end{aligned} \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.((v1_xcmplx_0 X0)\wedge(v1_xcmplx_0 X1))\Rightarrow(k6_binop_2 X0 X1 = k7_xcmplx_0 X0 X1) \quad (5)$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0)\Rightarrow(k2_binop_2 X0 = k5_xcmplx_0 X0) \quad (6)$$

Assume the following.

$$\begin{aligned} & (\neg v6_struct_0 k1_complfld)\wedge((v13_algstr_0 k1_complfld)\wedge((\\ & v33_algstr_0 k1_complfld)\wedge((v36_algstr_0 k1_complfld)\wedge((v3_group_1 \\ & k1_complfld)\wedge((v5_group_1 k1_complfld)\wedge((v3_vectsp_1 k1_complfld)\wedge \\ & ((v5_vectsp_1 k1_complfld)\wedge((v6_vectsp_1 k1_complfld)\wedge((v2_rlvect_1 \\ & k1_complfld)\wedge((v3_rlvect_1 k1_complfld)\wedge(v4_rlvect_1 k1_complfld)))))))))) \quad (7) \end{aligned}$$

Assume the following.

$$(v36_algstr_0 k1_complfld)\wedge(v4_vectsp_1 k1_complfld) \quad (8)$$

Assume the following.

$$(\neg v2_struct_0 k1_complfld)\wedge(v36_algstr_0 k1_complfld) \quad (9)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.(((\neg v2_struct_0 X0)\wedge((v33_algstr_0 \\ & X0)\wedge((v3_group_1 X0)\wedge((v5_group_1 X0)\wedge((v4_vectsp_1 X0)\wedge((\\ & v5_vectsp_1 X0)\wedge(l6_algstr_0 X0))))))\wedge((m1_subset_1 X1 (u1_struct_0 \\ & X0))\wedge(m1_subset_1 X2 (u1_struct_0 X0))))\Rightarrow(m1_subset_1 (k3_vectsp_1 \\ & X0 X1 X2) (u1_struct_0 X0)) \quad (10) \end{aligned}$$

Assume the following.

$$(v36_algstr_0 k1_complfld)\wedge(l6_algstr_0 k1_complfld) \quad (11)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 (u1_struct_0 k1_complfld))\Rightarrow(v1_xcmplx_0 X0) \quad (12)$$

Theorem 1

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 (u1_struct_0 k1_complfld))\Rightarrow(\forall X1. \\ & (m1_subset_1 X1 (u1_struct_0 k1_complfld))\Rightarrow(\neg(X0\neq k4_struct_0 \\ & k1_complfld)\wedge((X1\neq k4_struct_0 k1_complfld)\wedge(k11_algstr_0 \\ & k1_complfld (k3_vectsp_1 k1_complfld X0 X1)\neq k3_vectsp_1 k1_complfld \\ & X1 X0)))) \end{aligned}$$