

t33_complfld (TM-
Fxe7WM87rXNW5WC6BhZ7SKHx2nqXiMRRj)

October 27, 2020

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 $k3_vectsp_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k11_algstr_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_group_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ 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 $v3_rlvect_1 : \iota \Rightarrow o$ be given. Let $v4_rlvect_1 : \iota \Rightarrow o$ be given. Let $v3_group_1 : \iota \Rightarrow o$ be given. Let $v5_group_1 : \iota \Rightarrow o$ be given. Let $v4_vectsp_1 : \iota \Rightarrow o$ be given. Let $v5_vectsp_1 : \iota \Rightarrow o$ be given. Let $l6_algstr_0 : \iota \Rightarrow o$ be given. Let $k5_struct_0 : \iota \Rightarrow \iota$ be given. Let $k6_complex1 : \iota$ be given. Let $v36_algstr_0 : \iota \Rightarrow o$ be given. Let $v3_vectsp_1 : \iota \Rightarrow o$ be given. Let $v6_vectsp_1 : \iota \Rightarrow o$ be given. Let $v2_rlvect_1 : \iota \Rightarrow o$ be given. Let $np_1 : \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((\neg v6_struct_0 X0) \wedge ((v13_algstr_0 \\ & X0) \wedge ((v33_algstr_0 X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge \\ & ((v3_group_1 X0) \wedge ((v5_group_1 X0) \wedge ((v4_vectsp_1 X0) \wedge ((v5_vectsp_1 \\ & X0) \wedge (l6_algstr_0 X0)))))))))) \Rightarrow (\forall X1. (m1_subset_1 X1 \\ & (u1_struct_0 X0)) \Rightarrow ((X1 \neq k4_struct_0 X0) \Rightarrow (k11_algstr_0 X0 (k11_algstr_0 \\ & X0 X1) = X1))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0. (m1_subset_1 X0 (u1_struct_0 k1_complfld)) \Rightarrow ((X0 \neq k4_struct_0 k1_complfld) \Rightarrow (k3_vectsp_1 k1_complfld X0 X0 = k5_struct_0 k1_complfld)) \tag{2}$$

Assume the following.

$$\forall X0. (m1_subset_1 X0 (u1_struct_0 k1_complfld)) \Rightarrow ((X0 \neq k4_struct_0 k1_complfld) \Rightarrow (k11_algstr_0 k1_complfld X0 = k3_vectsp_1 k1_complfld (k5_struct_0 k1_complfld) X0)) \tag{3}$$

Assume the following.

$$k5_struct_0 k1_complfld = k6_complex1 \tag{4}$$

Assume the following.

$$\begin{aligned} & (\neg v6_struct_0 \ k1_complfld) \wedge ((v13_algstr_0 \ k1_complfld) \wedge ((\\ & v33_algstr_0 \ k1_complfld) \wedge ((v36_algstr_0 \ k1_complfld) \wedge ((v3_group_1 \\ & k1_complfld) \wedge ((v5_group_1 \ k1_complfld) \wedge ((v3_vectsp_1 \ k1_complfld) \wedge \\ & ((v5_vectsp_1 \ k1_complfld) \wedge ((v6_vectsp_1 \ k1_complfld) \wedge ((v2_rlvect_1 \\ & k1_complfld) \wedge ((v3_rlvect_1 \ k1_complfld) \wedge (v4_rlvect_1 \ k1_complfld)))))))))) \\ & \hspace{15em} (5) \end{aligned}$$

Assume the following.

$$(v36_algstr_0 \ k1_complfld) \wedge (v4_vectsp_1 \ k1_complfld) \quad (6)$$

Assume the following.

$$(\neg v2_struct_0 \ k1_complfld) \wedge (v36_algstr_0 \ k1_complfld) \quad (7)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (((\neg v2_struct_0 \ X0) \wedge ((v33_algstr_0 \\ & X0) \wedge ((v3_group_1 \ X0) \wedge ((v5_group_1 \ X0) \wedge ((v4_vectsp_1 \ X0) \wedge ((\\ & v5_vectsp_1 \ X0) \wedge (l6_algstr_0 \ X0)))))) \wedge ((m1_subset_1 \ X1 \ (u1_struct_0 \\ & X0)) \wedge (m1_subset_1 \ X2 \ (u1_struct_0 \ X0))) \Rightarrow (m1_subset_1 \ (k3_vectsp_1 \\ & X0 \ X1 \ X2) \ (u1_struct_0 \ X0)) \\ & \hspace{15em} (8) \end{aligned}$$

Assume the following.

$$(v36_algstr_0 \ k1_complfld) \wedge (l6_algstr_0 \ k1_complfld) \quad (9)$$

Assume the following.

$$k6_complex1 = np_1 \quad (10)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 \ X0) \wedge ((v33_algstr_0 \ X0) \wedge ((v3_group_1 \\ & X0) \wedge ((v5_group_1 \ X0) \wedge ((v4_vectsp_1 \ X0) \wedge ((v5_vectsp_1 \ X0) \wedge (\\ & l6_algstr_0 \ X0)))))) \Rightarrow (\forall X1. (m1_subset_1 \ X1 \ (u1_struct_0 \\ & X0)) \Rightarrow (\forall X2. (m1_subset_1 \ X2 \ (u1_struct_0 \ X0)) \Rightarrow (k3_vectsp_1 \\ & X0 \ X1 \ X2 = k8_group_1 \ X0 \ X1 \ (k11_algstr_0 \ X0 \ X2)))) \\ & \hspace{15em} (11) \end{aligned}$$

Theorem 1

$$\begin{aligned} & \forall X0. (m1_subset_1 \ X0 \ (u1_struct_0 \ k1_complfld)) \Rightarrow (\forall X1. \\ & (m1_subset_1 \ X1 \ (u1_struct_0 \ k1_complfld)) \Rightarrow ((X0 \neq k4_struct_0 \\ & k1_complfld) \Rightarrow (k3_vectsp_1 \ k1_complfld \ X1 \ (k11_algstr_0 \ k1_complfld \\ & X0) = k8_group_1 \ k1_complfld \ X1 \ X0))) \end{aligned}$$