

t37_complfld
(TMGFqsN5icG1Xa54N6g8Ronyj1KPygBH66F)

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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 $k3_vectsp_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_group_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_complex1 : \iota$ be given. Let $k11_algstr_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ 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 $k1_xboole_0 : \iota$ be given. Let $v6_struct_0 : \iota \Rightarrow o$ 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 $l2_algstr_0 : \iota \Rightarrow o$ be given. Let $l5_algstr_0 : \iota \Rightarrow o$ be given. Assume the following.

$$k4_struct_0 \ k1_complfld = k5_complex1 \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 \ X0 \ (u1_struct_0 \ k1_complfld)) \Rightarrow (\forall X1. \\ & \quad (m1_subset_1 \ X1 \ (u1_struct_0 \ k1_complfld)) \Rightarrow (\forall X2.(m1_subset_1 \\ & \quad \quad X2 \ (u1_struct_0 \ k1_complfld)) \Rightarrow (\neg(X0 \neq k4_struct_0 \ k1_complfld) \wedge \\ & \quad \quad ((X1 \neq k4_struct_0 \ k1_complfld) \wedge (k8_group_1 \ k1_complfld \ (k11_algstr_0 \\ & \quad \quad k1_complfld \ X0) \ (k3_vectsp_1 \ k1_complfld \ X2 \ X1) \neq k3_vectsp_1 \ k1_complfld \\ & \quad \quad \quad X2 \ (k8_group_1 \ k1_complfld \ X0 \ X1)))))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 \ X0 \ (u1_struct_0 \ k1_complfld)) \Rightarrow (\forall X1. \\ & \quad (m1_subset_1 \ X1 \ (u1_struct_0 \ k1_complfld)) \Rightarrow ((X0 \neq k4_struct_0 \\ & \quad \quad k1_complfld) \Rightarrow (k3_vectsp_1 \ k1_complfld \ X1 \ (k11_algstr_0 \ k1_complfld \\ & \quad \quad \quad X0) = k8_group_1 \ k1_complfld \ X1 \ X0))) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 (u1_struct_0 k1_complfld)) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (u1_struct_0 k1_complfld)) \Rightarrow (\neg(X0 \neq k4_struct_0 \\ & k1_complfld) \wedge ((X1 \neq k4_struct_0 k1_complfld) \wedge (k3_vectsp_1 k1_complfld \\ & (k11_algstr_0 k1_complfld X0) (k11_algstr_0 k1_complfld X1) \neq \\ & k3_vectsp_1 k1_complfld X1 X0)))))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 (u1_struct_0 k1_complfld)) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (u1_struct_0 k1_complfld)) \Rightarrow (\forall X2.(m1_subset_1 \\ & X2 (u1_struct_0 k1_complfld)) \Rightarrow ((X0 \neq k4_struct_0 k1_complfld) \Rightarrow \\ & (k8_group_1 k1_complfld X1 (k3_vectsp_1 k1_complfld X2 X0) = k3_vectsp_1 \\ & k1_complfld (k8_group_1 k1_complfld X1 X2) X0)))))) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 (u1_struct_0 k1_complfld)) \Rightarrow ((X0 \neq \\ & k4_struct_0 k1_complfld) \Rightarrow (k3_vectsp_1 k1_complfld (k4_struct_0 \\ & k1_complfld) X0 = k4_struct_0 k1_complfld)) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v33_algstr_0 \\ & X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v3_group_1 X0) \wedge (\\ & (v5_group_1 X0) \wedge ((v4_vectsp_1 X0) \wedge ((v5_vectsp_1 X0) \wedge (l6_algstr_0 \\ & X0)))))))))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow \\ & (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow ((k8_group_1 X0 \\ & X1 X2 = k4_struct_0 X0) \Leftrightarrow ((X1 = k4_struct_0 X0) \vee (X2 = k4_struct_0 \\ & X0)))))) \end{aligned} \quad (7)$$

Assume the following.

$$k5_complex1 = k1_xboole_0 \quad (8)$$

Assume the following.

$$\begin{aligned} & (\neg v6_struct_0 k1_complfld) \wedge ((v13_algstr_0 k1_complfld) \wedge ((\\ & v33_algstr_0 k1_complfld) \wedge ((v36_algstr_0 k1_complfld) \wedge ((v3_group_1 \\ & k1_complfld) \wedge ((v5_group_1 k1_complfld) \wedge ((v3_vectsp_1 k1_complfld) \wedge \\ & ((v5_vectsp_1 k1_complfld) \wedge ((v6_vectsp_1 k1_complfld) \wedge ((v2_rlvect_1 \\ & k1_complfld) \wedge ((v3_rlvect_1 k1_complfld) \wedge (v4_rlvect_1 k1_complfld)))))))))) \end{aligned} \quad (9)$$

Assume the following.

$$(v36_algstr_0 k1_complfld) \wedge (v4_vectsp_1 k1_complfld) \quad (10)$$

Assume the following.

$$(\neg v2_struct_0\ k1_complfld) \wedge (v36_algstr_0\ k1_complfld) \quad (11)$$

Assume the following.

$$\forall X0.(l6_algstr_0\ X0) \Rightarrow ((l2_algstr_0\ X0) \wedge (l5_algstr_0\ X0)) \quad (12)$$

Assume the following.

$$(v36_algstr_0\ k1_complfld) \wedge (l6_algstr_0\ k1_complfld) \quad (13)$$

Assume the following.

$$\forall X0.\forall X1.((l5_algstr_0\ X0) \wedge (m1_subset_1\ X1\ (u1_struct_0\ X0))) \Rightarrow (m1_subset_1\ (k11_algstr_0\ X0\ X1)\ (u1_struct_0\ X0)) \quad (14)$$

Theorem 1

$$\begin{aligned} & \forall X0.(m1_subset_1\ X0\ (u1_struct_0\ k1_complfld)) \Rightarrow (\forall X1. \\ & (m1_subset_1\ X1\ (u1_struct_0\ k1_complfld)) \Rightarrow (\forall X2.(m1_subset_1 \\ & X2\ (u1_struct_0\ k1_complfld)) \Rightarrow (\neg(X0 \neq k4_struct_0\ k1_complfld) \wedge \\ & ((X1 \neq k4_struct_0\ k1_complfld) \wedge (k3_vectsp_1\ k1_complfld\ X2\ (\\ & k8_group_1\ k1_complfld\ X0\ X1) \neq k3_vectsp_1\ k1_complfld\ (k3_vectsp_1 \\ & k1_complfld\ X2\ X0)\ X1)))))) \end{aligned}$$