

t77_complfld
(TMR9cpq6fKfSxAh6NM2vjBHXsnHa7UemEqC)

October 27, 2020

Let $v1_xboole_0 : \iota \Rightarrow o$ 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 $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k1_complfld : \iota$ be given. Let $m1_complfld : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_struct_0 : \iota \Rightarrow \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k6_numbers : \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v13_algstr_0 : \iota \Rightarrow o$ be given. Let $v3_rlvect_1 : \iota \Rightarrow o$ be given. Let $v4_rlvect_1 : \iota \Rightarrow o$ be given. Let $v1_group_1 : \iota \Rightarrow o$ be given. Let $v1_vectsp_1 : \iota \Rightarrow o$ be given. Let $l6_algstr_0 : \iota \Rightarrow o$ be given. Let $k2_binop_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_group_1 : \iota \Rightarrow \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $v6_struct_0 : \iota \Rightarrow o$ 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 $v4_vectsp_1 : \iota \Rightarrow o$ be given. Let $l2_algstr_0 : \iota \Rightarrow o$ be given. Let $l5_algstr_0 : \iota \Rightarrow o$ be given. Let $l4_algstr_0 : \iota \Rightarrow o$ be given. Let $l4_struct_0 : \iota \Rightarrow o$ be given. Let $l2_struct_0 : \iota \Rightarrow o$ be given. Let $l1_algstr_0 : \iota \Rightarrow o$ be given. Let $v2_vectsp_1 : \iota \Rightarrow o$ be given. Let $g6_algstr_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_algstr_0 : \iota \Rightarrow \iota$ be given. Let $u2_algstr_0 : \iota \Rightarrow \iota$ be given. Let $u3_struct_0 : \iota \Rightarrow \iota$ be given. Let $u2_struct_0 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (\neg(k6_numbers \neq X0) \wedge (r1_xxreal_0 X0 k6_numbers)) \quad (1)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v1_group_1 X0) \wedge ((v1_vectsp_1 X0) \wedge (l6_algstr_0 X0))))))) \Rightarrow (\forall X1.(m2_subset_1 X1 k1_numbers k5_numbers) \Rightarrow ((\neg r1_xxreal_0 X1 k6_numbers) \Rightarrow (k2_binop_1 (u1_struct_0 X0) k5_numbers (u1_struct_0 X0) (k4_group_1 X0) (k4_struct_0 X0) X1 = k4_struct_0 X0))) \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1_xboole_0 X0)\wedge((\neg v1_xboole_0 X1)\wedge(m1_subset_1 X1 (k1_zfmisc_1 X0))))\Rightarrow(\forall X2.(m2_subset_1 X2 X0 X1)\Leftrightarrow(m1_subset_1 X2 X1)) \quad (3)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (4)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (5)$$

Assume the following.

$$(\neg v1_xboole_0 k4_ordinal1)\wedge(v3_ordinal1 k4_ordinal1) \quad (6)$$

Assume the following.

$$\begin{aligned} & (\neg v6_struct_0 k1_complfld)\wedge((v13_algstr_0 k1_complfld)\wedge((\\ & v33_algstr_0 k1_complfld)\wedge((v36_algstr_0 k1_complfld)\wedge((v3_group_1 \\ & k1_complfld)\wedge((v5_group_1 k1_complfld)\wedge((v3_vectsp_1 k1_complfld)\wedge \\ & ((v5_vectsp_1 k1_complfld)\wedge((v6_vectsp_1 k1_complfld)\wedge((v2_rvect_1 \\ & k1_complfld)\wedge((v3_rvect_1 k1_complfld)\wedge(v4_rvect_1 k1_complfld)))))))))) \quad (7) \end{aligned}$$

Assume the following.

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

Assume the following.

$$v1_xboole_0 k1_xboole_0 \quad (9)$$

Assume the following.

$$\neg v1_xboole_0 k1_numbers \quad (10)$$

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.

$$\forall X0.(l5_algstr_0 X0)\Rightarrow((l4_algstr_0 X0)\wedge(l4_struct_0 X0)) \quad (13)$$

Assume the following.

$$\forall X0.(l2_algstr_0 X0)\Rightarrow((l2_struct_0 X0)\wedge(l1_algstr_0 X0)) \quad (14)$$

Assume the following.

$$m1_subset_1 \ k5_numbers \ (k1_zfmisc_1 \ k1_numbers) \quad (15)$$

Assume the following.

$$\forall X0.(l2_struct_0 \ X0) \Rightarrow (m1_subset_1 \ (k4_struct_0 \ X0) \ (u1_struct_0 \ X0)) \quad (16)$$

Assume the following.

$$(v36_algstr_0 \ k1_complfld) \wedge (l6_algstr_0 \ k1_complfld) \quad (17)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 \ X0 \ (u1_struct_0 \ k1_complfld)) \Rightarrow (\forall X1. \\ & ((\neg v1_xboole_0 \ X1) \wedge (m2_subset_1 \ X1 \ k1_numbers \ k5_numbers)) \Rightarrow \\ & (\forall X2.(m1_subset_1 \ X2 \ (u1_struct_0 \ k1_complfld)) \Rightarrow ((m1_complfld \\ & X2 \ X0 \ X1) \Leftrightarrow (k2_binop_1 \ (u1_struct_0 \ k1_complfld) \ k5_numbers \ (u1_struct_0 \\ & k1_complfld) \ (k4_group_1 \ k1_complfld) \ X2 \ X1 = X0)))) \end{aligned} \quad (18)$$

Assume the following.

$$\forall X0.(m1_subset_1 \ X0 \ k4_ordinal1) \Rightarrow (v7_ordinal1 \ X0) \quad (19)$$

Assume the following.

$$\forall X0.(l4_algstr_0 \ X0) \Rightarrow (((\neg v2_struct_0 \ X0) \wedge (v4_vectsp_1 \ X0)) \Rightarrow ((\neg v2_struct_0 \ X0) \wedge (v1_group_1 \ X0))) \quad (20)$$

Assume the following.

$$\forall X0.(l6_algstr_0 \ X0) \Rightarrow (((\neg v2_struct_0 \ X0) \wedge (v5_vectsp_1 \ X0)) \Rightarrow ((\neg v2_struct_0 \ X0) \wedge ((v1_vectsp_1 \ X0) \wedge (v2_vectsp_1 \ X0)))) \quad (21)$$

Assume the following.

$$\forall X0.(l6_algstr_0 \ X0) \Rightarrow ((v36_algstr_0 \ X0) \Rightarrow (X0 = g6_algstr_0 \ (u1_struct_0 \ X0) \ (u1_algstr_0 \ X0) \ (u2_algstr_0 \ X0) \ (u3_struct_0 \ X0) \ (u2_struct_0 \ X0))) \quad (22)$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v1_xboole_0 \ X0) \wedge (m2_subset_1 \ X0 \ k1_numbers \ k5_numbers)) \Rightarrow \\ & (\forall X1.(m1_subset_1 \ X1 \ (u1_struct_0 \ k1_complfld)) \Rightarrow (\forall X2. \\ & (m1_complfld \ X2 \ X1 \ X0) \Rightarrow ((X2 = k4_struct_0 \ k1_complfld) \Rightarrow (X1 = k4_struct_0 \\ & k1_complfld)))) \end{aligned}$$