

t17_complfld

(TMS4qTbnfE113hnR1vBz4MbtAkzADML6ArU)

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Let $k11_algstr_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_complfld : \iota$ be given. Let $k5_struct_0 : \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $k4_struct_0 : \iota \Rightarrow \iota$ be given. Let $k2_binop_2 : \iota \Rightarrow \iota$ be given. Let $k7_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k5_xcmplx_0 : \iota \Rightarrow \iota$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ 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 $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k5_complex1 : \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k6_complex1 : \iota$ be given. Let $k2_numbers : \iota$ be given. Let $v36_algstr_0 : \iota \Rightarrow o$ be given. Let $l6_algstr_0 : \iota \Rightarrow o$ be given. Let $u1_algstr_0 : \iota \Rightarrow \iota$ be given. Let $k27_binop_2 : \iota$ be given. Let $u2_algstr_0 : \iota \Rightarrow \iota$ be given. Let $k29_binop_2 : \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 (u1_struct_0 k1_complfld)) \Rightarrow (\forall X1. \\ & (v1_xcmplx_0 X1) \Rightarrow ((X0 = X1) \Rightarrow ((X0 = k4_struct_0 k1_complfld) \vee (\\ & k11_algstr_0 k1_complfld X0 = k2_binop_2 X1)))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow (k7_xcmplx_0 np_1 X0 = k5_xcmplx_0 X0) \quad (2)$$

Assume the following.

$$\begin{aligned} & ((v2_xxreal_0 np_1) \wedge (m2_subset_1 np_1 k1_numbers k5_numbers)) \wedge \\ & ((m1_subset_1 np_1 k5_numbers) \wedge (m1_subset_1 np_1 k1_numbers)) \end{aligned} \quad (3)$$

Assume the following.

$$\neg v1_xboole_0 np_1 \quad (4)$$

Assume the following.

$$k7_xcmplx_0 np_1 np_1 = np_1 \quad (5)$$

Assume the following.

$$k5_complex1 = k1_xboole_0 \quad (6)$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow (k2_binop_2 X0 = k5_xcmplx_0 X0) \quad (7)$$

Assume the following.

$$v1_xboole_0 k1_xboole_0 \quad (8)$$

Assume the following.

$$m1_subset_1 k6_complex1 k2_numbers \quad (9)$$

Assume the following.

$$(v36_algstr_0 k1_complfld) \wedge (l6_algstr_0 k1_complfld) \quad (10)$$

Assume the following.

$$k6_complex1 = np_1 \quad (11)$$

Assume the following.

$$\begin{aligned} \forall X0.((v36_algstr_0 X0) \wedge (l6_algstr_0 X0)) \Rightarrow ((X0 = k1_complfld) \Leftrightarrow \\ ((u1_struct_0 X0 = k2_numbers) \wedge ((u1_algstr_0 X0 = k27_binop_2) \wedge \\ ((u2_algstr_0 X0 = k29_binop_2) \wedge ((k5_struct_0 X0 = k6_complex1) \wedge \\ (k4_struct_0 X0 = k5_complex1)))))) \end{aligned} \quad (12)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (v1_xcmplx_0 X0) \quad (13)$$

Theorem 1

$$k11_algstr_0 k1_complfld (k5_struct_0 k1_complfld) = k5_struct_0 k1_complfld$$