

t3_complfld (TMYk- mxkRza7sRNyQQBoQdYshCMWZTRoQrDe)

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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 $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $k5_algstr_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_binop_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_algstr_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_binop_2 : \iota \Rightarrow \iota$ be given. Let $k2_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_xcmplx_0 : \iota \Rightarrow \iota$ be given. Let $k6_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_binop_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_algstr_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $l6_algstr_0 : \iota \Rightarrow o$ be given. Let $l2_algstr_0 : \iota \Rightarrow o$ be given. Let $l5_algstr_0 : \iota \Rightarrow o$ be given. Let $v36_algstr_0 : \iota \Rightarrow o$ 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.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 (u1_struct_0 k1_complfld)) \Rightarrow (\forall X1. \\ & (v1_xcmplx_0 X1) \Rightarrow ((X0 = X1) \Rightarrow (k4_algstr_0 k1_complfld X0 = k1_binop_2 \\ & X1))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.((v1_xcmplx_0 X0) \wedge (v1_xcmplx_0 X1)) \Rightarrow (k2_xcmplx_0 X0 (k4_xcmplx_0 X1) = k6_xcmplx_0 X0 X1) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.((v1_xcmplx_0 X0) \wedge (v1_xcmplx_0 X1)) \Rightarrow (k4_binop_2 X0 X1 = k6_xcmplx_0 X0 X1) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.((v1_xcmplx_0 X0) \wedge (v1_xcmplx_0 X1)) \Rightarrow (k3_binop_2 X0 X1 = k2_xcmplx_0 X0 X1) \tag{4}$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow (k1_binop_2 X0 = k4_xcmplx_0 X0) \tag{5}$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.((v1_xcmplx_0 X0)\wedge \\ & ((v1_xcmplx_0 X1)\wedge((m1_subset_1 X2 (u1_struct_0 k1_complfld))\wedge \\ & (m1_subset_1 X3 (u1_struct_0 k1_complfld))))))\Rightarrow(((X2 = X0)\wedge(X3 = \\ & X1))\Rightarrow(k1_algstr_0 k1_complfld X2 X3 = k3_binop_2 X0 X1)) \end{aligned} \quad (6)$$

Assume the following.

$$\forall X0.(l6_algstr_0 X0)\Rightarrow((l2_algstr_0 X0)\wedge(l5_algstr_0 X0)) \quad (7)$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0)\Rightarrow(v1_xcmplx_0 (k4_xcmplx_0 X0)) \quad (8)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.((l2_algstr_0 X0)\wedge(m1_subset_1 X1 (u1_struct_0 \\ & X0)))\Rightarrow(m1_subset_1 (k4_algstr_0 X0 X1) (u1_struct_0 X0)) \end{aligned} \quad (9)$$

Assume the following.

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

Assume the following.

$$\begin{aligned} & \forall X0.(l2_algstr_0 X0)\Rightarrow(\forall X1.(m1_subset_1 X1 (u1_struct_0 \\ & X0))\Rightarrow(\forall X2.(m1_subset_1 X2 (u1_struct_0 X0))\Rightarrow(k5_algstr_0 \\ & X0 X1 X2 = k1_algstr_0 X0 X1 (k4_algstr_0 X0 X2)))) \end{aligned} \quad (11)$$

Assume the following.

$$\begin{aligned} & \forall X0.(l6_algstr_0 X0)\Rightarrow((v36_algstr_0 X0)\Rightarrow(X0 = g6_algstr_0 \\ & (u1_struct_0 X0) (u1_algstr_0 X0) (u2_algstr_0 X0) (u3_struct_0 \\ & X0) (u2_struct_0 X0))) \end{aligned} \quad (12)$$

Theorem 1

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 (u1_struct_0 k1_complfld))\Rightarrow(\forall X1. \\ & (m1_subset_1 X1 (u1_struct_0 k1_complfld))\Rightarrow(\forall X2.(v1_xcmplx_0 \\ & X2)\Rightarrow(\forall X3.(v1_xcmplx_0 X3)\Rightarrow(((X0 = X2)\wedge(X1 = X3))\Rightarrow(k5_algstr_0 \\ & k1_complfld X0 X1 = k4_binop_2 X2 X3)))))) \end{aligned}$$