

t6\_complfld  
(TMUV1CP43KjSFeTNzmkKhFbRPPU9SaafNKi)

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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  $k4\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k3\_vectsp\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_binop\_2 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k11\_algstr\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_binop\_2 : \iota \Rightarrow \iota$  be given. Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v5\_group\_1 : \iota \Rightarrow o$  be given. Let  $l3\_algstr\_0 : \iota \Rightarrow o$  be given. Let  $k8\_group\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_algstr\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k7\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k5\_binop\_2 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k5\_xcmplx\_0 : \iota \Rightarrow \iota$  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  $v36\_algstr\_0 : \iota \Rightarrow o$  be given. Let  $v3\_group\_1 : \iota \Rightarrow o$  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  $v3\_rlvect\_1 : \iota \Rightarrow o$  be given. Let  $v4\_rlvect\_1 : \iota \Rightarrow o$  be given. Let  $v4\_vectsp\_1 : \iota \Rightarrow o$  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  $l4\_algstr\_0 : \iota \Rightarrow o$  be given. Let  $l4\_struct\_0 : \iota \Rightarrow o$  be given. Let  $l3\_struct\_0 : \iota \Rightarrow o$  be given. Let  $g6\_algstr\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  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.

$$\begin{aligned} & \forall X0.(m1\_subset\_1 X0 (u1\_struct\_0 k1\_complfld)) \Rightarrow (\forall X1. \\ & (v1\_xcmplx\_0 X1) \Rightarrow ((X0 = X1) \Rightarrow ((X0 = k4\_struct\_0 k1\_complfld) \vee ( \\ & k11\_algstr\_0 k1\_complfld X0 = k2\_binop\_2 X1)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.(((\neg v2\_struct\_0 X0) \wedge ((v5\_group\_1 \\ & X0) \wedge (l3\_algstr\_0 X0))) \wedge ((m1\_subset\_1 X1 (u1\_struct\_0 X0)) \wedge ( \\ & m1\_subset\_1 X2 (u1\_struct\_0 X0)))) \Rightarrow (k8\_group\_1 X0 X1 X2 = k6\_algstr\_0 \\ & X0 X1 X2) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.((v1\_xcmplx\_0 X0) \wedge (v1\_xcmplx\_0 X1)) \Rightarrow ( \\ & k6\_binop\_2 X0 X1 = k7\_xcmplx\_0 X0 X1) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xcmplx\_0 X0)\wedge(v1\_xcmplx\_0 X1))\Rightarrow(k5\_binop\_2 X0 X1 = k3\_xcmplx\_0 X0 X1) \quad (4)$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0 X0)\Rightarrow(k2\_binop\_2 X0 = k5\_xcmplx\_0 X0) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.((v1\_xcmplx\_0 X0)\wedge((v1\_xcmplx\_0 X1)\wedge((m1\_subset\_1 X2 (u1\_struct\_0 k1\_complfld))\wedge(m1\_subset\_1 X3 (u1\_struct\_0 k1\_complfld))))))\Rightarrow(((X2 = X0)\wedge(X3 = X1))\Rightarrow(k6\_algstr\_0 k1\_complfld X2 X3 = k5\_binop\_2 X0 X1)) \quad (6)$$

Assume the following.

$$\begin{aligned} & (\neg v6\_struct\_0 k1\_complfld)\wedge((v13\_algstr\_0 k1\_complfld)\wedge(( \\ & v33\_algstr\_0 k1\_complfld)\wedge((v36\_algstr\_0 k1\_complfld)\wedge((v3\_group\_1 \\ & k1\_complfld)\wedge((v5\_group\_1 k1\_complfld)\wedge((v3\_vectsp\_1 k1\_complfld)\wedge \\ & ((v5\_vectsp\_1 k1\_complfld)\wedge((v6\_vectsp\_1 k1\_complfld)\wedge((v2\_rlvect\_1 \\ & k1\_complfld)\wedge((v3\_rlvect\_1 k1\_complfld)\wedge(v4\_rlvect\_1 k1\_complfld)))))))))) \quad (7) \end{aligned}$$

Assume the following.

$$(v36\_algstr\_0 k1\_complfld)\wedge(v4\_vectsp\_1 k1\_complfld) \quad (8)$$

Assume the following.

$$(\neg v2\_struct\_0 k1\_complfld)\wedge(v36\_algstr\_0 k1\_complfld) \quad (9)$$

Assume the following.

$$\forall X0.(l6\_algstr\_0 X0)\Rightarrow((l2\_algstr\_0 X0)\wedge(l5\_algstr\_0 X0)) \quad (10)$$

Assume the following.

$$\forall X0.(l5\_algstr\_0 X0)\Rightarrow((l4\_algstr\_0 X0)\wedge(l4\_struct\_0 X0)) \quad (11)$$

Assume the following.

$$\forall X0.(l4\_algstr\_0 X0)\Rightarrow((l3\_struct\_0 X0)\wedge(l3\_algstr\_0 X0)) \quad (12)$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0 X0)\Rightarrow(v1\_xcmplx\_0 (k5\_xcmplx\_0 X0)) \quad (13)$$

Assume the following.

$$(v36\_algstr\_0 k1\_complfld)\wedge(l6\_algstr\_0 k1\_complfld) \quad (14)$$

Assume the following.

$$\forall X0.\forall X1.((l5\_algstr\_0 X0)\wedge(m1\_subset\_1 X1 (u1\_struct\_0 X0)))\Rightarrow(m1\_subset\_1 (k11\_algstr\_0 X0 X1) (u1\_struct\_0 X0)) \quad (15)$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0 X0)\Rightarrow(\forall X1.(v1\_xcmplx\_0 X1)\Rightarrow(k7\_xcmplx\_0 X0 X1 = k3\_xcmplx\_0 X0 (k5\_xcmplx\_0 X1))) \quad (16)$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0 X0)\wedge((v33\_algstr\_0 X0)\wedge((v3\_group\_1 X0)\wedge((v5\_group\_1 X0)\wedge((v4\_vectsp\_1 X0)\wedge((v5\_vectsp\_1 X0)\wedge(l6\_algstr\_0 X0)))))))\Rightarrow(\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 X0))\Rightarrow(\forall X2.(m1\_subset\_1 X2 (u1\_struct\_0 X0))\Rightarrow(k3\_vectsp\_1 X0 X1 X2 = k8\_group\_1 X0 X1 (k11\_algstr\_0 X0 X2)))) \quad (17)$$

Assume the following.

$$\forall X0.(l6\_algstr\_0 X0)\Rightarrow((v36\_algstr\_0 X0)\Rightarrow(X0 = g6\_algstr\_0 (u1\_struct\_0 X0) (u1\_algstr\_0 X0) (u2\_algstr\_0 X0) (u3\_struct\_0 X0) (u2\_struct\_0 X0))) \quad (18)$$

**Theorem 1**

$$\forall X0.(m1\_subset\_1 X0 (u1\_struct\_0 k1\_complfld))\Rightarrow(\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 k1\_complfld))\Rightarrow(\forall X2.(v1\_xcmplx\_0 X2)\Rightarrow(\forall X3.(v1\_xcmplx\_0 X3)\Rightarrow(((X0 = X2)\wedge(X1 = X3))\Rightarrow((X1 = k4\_struct\_0 k1\_complfld)\vee(k3\_vectsp\_1 k1\_complfld X0 X1 = k6\_binop\_2 X2 X3))))))$$