

t26\_complfld  
(TMQK8ZoxJtFoXy8DqNqS6ZN9fY7kaxNCnLY)

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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  $k3\_vectsp.1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_struct.0 : \iota \Rightarrow \iota$  be given. Let  $v1\_xboole.0 : \iota \Rightarrow o$  be given. Let  $k5\_complex1 : \iota$  be given. Let  $v1\_xcmplx.0 : \iota \Rightarrow o$  be given. Let  $k6\_binop.2 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k7\_xcmplx.0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_xboole.0 : \iota$  be given. Let  $k1\_zfmisc.1 : \iota \Rightarrow \iota$  be given. Let  $k2\_zfmisc.1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_relat.1 : \iota \Rightarrow o$  be given. Let  $v4\_relat.1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v5\_relat.1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0. \forall X1. \neg(v1\_xboole.0 X0) \wedge ((X0 \neq X1) \wedge (v1\_xboole.0 X1)) \quad (1)$$

Assume the following.

$$k4\_struct.0 k1\_complfld = k5\_complex1 \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. (m1\_subset.1 X0 (u1\_struct.0 k1\_complfld)) \Rightarrow (\forall X1. \\ & (m1\_subset.1 X1 (u1\_struct.0 k1\_complfld)) \Rightarrow (\forall X2. (v1\_xcmplx.0 \\ & X2) \Rightarrow (\forall X3. (v1\_xcmplx.0 X3) \Rightarrow (((X0 = X2) \wedge (X1 = X3)) \Rightarrow ((X1 = \\ & k4\_struct.0 k1\_complfld) \vee (k3\_vectsp.1 k1\_complfld X0 X1 = k6\_binop.2 \\ & X2 X3)))))) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. ((v1\_xcmplx.0 X0) \wedge (v1\_xcmplx.0 X1)) \Rightarrow (k6\_binop.2 X0 X1 = k7\_xcmplx.0 X0 X1) \quad (4)$$

Assume the following.

$$k5\_complex1 = k1\_xboole.0 \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \exists X2. (m1\_subset.1 X2 (k1\_zfmisc.1 \\ & (k2\_zfmisc.1 X0 X1))) \wedge ((v1\_xboole.0 X2) \wedge ((v1\_relat.1 X2) \wedge (( \\ & v4\_relat.1 X2 X0) \wedge (v5\_relat.1 X2 X1)))) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((\neg v1\_xboole\_0 X0) \wedge (v1\_xcmplx\_0 X0)) \wedge \\ & ((\neg v1\_xboole\_0 X1) \wedge (v1\_xcmplx\_0 X1))) \Rightarrow (\neg v1\_xboole\_0 (k7\_xcmplx\_0 \\ & X0 X1)) \end{aligned} \tag{7}$$

Assume the following.

$$v1\_xboole\_0 k1\_xboole\_0 \tag{8}$$

Assume the following.

$$\forall X0. (m1\_subset\_1 X0 (u1\_struct\_0 k1\_complfld)) \Rightarrow (v1\_xcmplx\_0 X0) \tag{9}$$

**Theorem 1**

$$\begin{aligned} & \forall X0. (m1\_subset\_1 X0 (u1\_struct\_0 k1\_complfld)) \Rightarrow (\forall X1. \\ & (m1\_subset\_1 X1 (u1\_struct\_0 k1\_complfld)) \Rightarrow ((k3\_vectsp\_1 k1\_complfld \\ & X1 X0 = k4\_struct\_0 k1\_complfld) \Rightarrow ((X0 = k4\_struct\_0 k1\_complfld) \vee \\ & (X1 = k4\_struct\_0 k1\_complfld)))) \end{aligned}$$