

# t11\_hermitan (TMSGMiCCVNwRgvSaeLf- BkctzfDTshymmahD)

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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  $k4\_complex1 : \iota \Rightarrow \iota$  be given. Let  $k6\_numbers : \iota$  be given. Let  $k8\_group\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_xcmplx\_0 : \iota \Rightarrow o$  be given. Let  $k5\_binop\_2 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_complex1 : \iota \Rightarrow \iota$  be given. Let  $k3\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k8\_real\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $c2\_binop\_2 : \iota$  be given. Let  $c1\_axioms : \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0.(m1\_subset\_1 X0 (u1\_struct\_0 k1\_complfld)) \Rightarrow (\forall X1. \\ & (m1\_subset\_1 X1 (u1\_struct\_0 k1\_complfld)) \Rightarrow (\forall X2.(v1\_xcmplx\_0 \\ & X2) \Rightarrow (\forall X3.(v1\_xcmplx\_0 X3) \Rightarrow (((X0 = X2) \wedge (X1 = X3)) \Rightarrow (k8\_group\_1 \\ & k1\_complfld X0 X1 = k5\_binop\_2 X2 X3)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.(v1\_xcmplx\_0 X0) \Rightarrow (\forall X1.(v1\_xcmplx\_0 X1) \Rightarrow (( \\ & (k4\_complex1 X0 = k6\_numbers) \wedge (k4\_complex1 X1 = k6\_numbers)) \Rightarrow \\ & ((k3\_complex1 (k3\_xcmplx\_0 X0 X1) = k8\_real\_1 (k3\_complex1 X0 \\ & k3\_complex1 X1)) \wedge (k4\_complex1 (k3\_xcmplx\_0 X0 X1) = k6\_numbers)))) \end{aligned} \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xcmplx\_0 X0) \wedge (v1\_xcmplx\_0 X1)) \Rightarrow (k5\_binop\_2 X0 X1 = k3\_xcmplx\_0 X0 X1) \tag{3}$$

Assume the following.

$$c2\_binop\_2 = k6\_numbers \tag{4}$$

Assume the following.

$$c1\_axioms = k6\_numbers \tag{5}$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 (u1\_struct\_0 k1\_complfld)) \Rightarrow (v1\_xcmplx\_0 X0) \tag{6}$$

**Theorem 1**

$$\begin{aligned} & \forall X0.(m1\_subset\_1 X0 (u1\_struct\_0 k1\_complfld)) \Rightarrow (\forall X1. \\ & (m1\_subset\_1 X1 (u1\_struct\_0 k1\_complfld)) \Rightarrow (((k4\_complex1 X0 = \\ & k6\_numbers) \wedge (k4\_complex1 X1 = k6\_numbers)) \Rightarrow (k4\_complex1 (k8\_group\_1 \\ & k1\_complfld X0 X1) = k6\_numbers))) \end{aligned}$$