

# t63\_complex1

(TMGU6bHmw1BcCzvauYyUbDrdxDCE3x1DkV8)

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Let  $v1\_xcmplx\_0 : \iota \Rightarrow o$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k17\_complex1 : \iota \Rightarrow \iota$  be given. Let  $k6\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k7\_real\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0.(v1\_xcmplx\_0 X0) \Rightarrow (\forall X1.(v1\_xcmplx\_0 X1) \Rightarrow (k17\_complex1 (k6\_xcmplx\_0 X0 X1) = k17\_complex1 (k6\_xcmplx\_0 X1 X0))) \quad (1)$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0 X0) \Rightarrow (\forall X1.(v1\_xcmplx\_0 X1) \Rightarrow (r1\_xxreal\_0 (k17\_complex1 (k6\_xcmplx\_0 X0 X1)) (k7\_real\_1 (k17\_complex1 X0) (k17\_complex1 X1)))) \quad (2)$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0 X0) \Rightarrow (\forall X1.(v1\_xcmplx\_0 X1) \Rightarrow (\forall X2.(v1\_xcmplx\_0 X2) \Rightarrow (k6\_xcmplx\_0 X0 X1 = k6\_xcmplx\_0 (k6\_xcmplx\_0 X0 X2) (k6\_xcmplx\_0 X1 X2)))) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xcmplx\_0 X0) \wedge (v1\_xcmplx\_0 X1)) \Rightarrow (v1\_xcmplx\_0 (k6\_xcmplx\_0 X0 X1)) \quad (4)$$

**Theorem 1**

$$\forall X0.(v1\_xcmplx\_0 X0) \Rightarrow (\forall X1.(v1\_xcmplx\_0 X1) \Rightarrow (\forall X2.(v1\_xcmplx\_0 X2) \Rightarrow (r1\_xxreal\_0 (k17\_complex1 (k6\_xcmplx\_0 X0 X1)) (k7\_real\_1 (k17\_complex1 (k6\_xcmplx\_0 X0 X2)) (k17\_complex1 (k6\_xcmplx\_0 X2 X1))))))$$