

t99\_xreal\_1

(TMYpuojCsPmw9eTAo37JMRazaYry9ugoYYi)

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Let  $v1\_xreal\_0 : \iota \Rightarrow o$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k6\_numbers : \iota$  be given. Let  $k7\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_xcmplx\_0 : \iota \Rightarrow o$  be given. Let  $k3\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k5\_xcmplx\_0 : \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0. \forall X1. ((v1\_xcmplx\_0 X0) \wedge (v1\_xcmplx\_0 X1)) \Rightarrow (k3\_xcmplx\_0 X0 (k5\_xcmplx\_0 X1) = k7\_xcmplx\_0 X0 X1) \quad (1)$$

Assume the following.

$$\forall X0. (v1\_xreal\_0 X0) \Rightarrow (\forall X1. (v1\_xreal\_0 X1) \Rightarrow (\forall X2. (v1\_xreal\_0 X2) \Rightarrow (\neg(\neg r1\_xxreal\_0 X0 k6\_numbers) \wedge ((\neg r1\_xxreal\_0 X2 X1) \wedge (r1\_xxreal\_0 (k3\_xcmplx\_0 X2 X0) (k3\_xcmplx\_0 X1 X0))))))) \quad (2)$$

Assume the following.

$$\forall X0. (v1\_xreal\_0 X0) \Rightarrow (\forall X1. (v1\_xreal\_0 X1) \Rightarrow (\neg(\neg r1\_xxreal\_0 k6\_numbers X0) \wedge ((\neg r1\_xxreal\_0 X0 X1) \wedge (r1\_xxreal\_0 (k5\_xcmplx\_0 X1) (k5\_xcmplx\_0 X0)))))) \quad (3)$$

Assume the following.

$$\forall X0. (v1\_xreal\_0 X0) \Rightarrow ((v1\_xcmplx\_0 (k5\_xcmplx\_0 X0)) \wedge (v1\_xreal\_0 (k5\_xcmplx\_0 X0))) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. ((v1\_xcmplx\_0 X0) \wedge (v1\_xcmplx\_0 X1)) \Rightarrow (k3\_xcmplx\_0 X0 X1 = k3\_xcmplx\_0 X1 X0) \quad (5)$$

Assume the following.

$$\forall X0. (v1\_xreal\_0 X0) \Rightarrow (v1\_xcmplx\_0 X0) \quad (6)$$

**Theorem 1**

$$\forall X0. (v1\_xreal\_0 X0) \Rightarrow (\forall X1. (v1\_xreal\_0 X1) \Rightarrow (\forall X2. (v1\_xreal\_0 X2) \Rightarrow (\neg(\neg r1\_xxreal\_0 X0 k6\_numbers) \wedge ((\neg r1\_xxreal\_0 k6\_numbers X1) \wedge ((\neg r1\_xxreal\_0 X1 X2) \wedge (r1\_xxreal\_0 (k7\_xcmplx\_0 X0 X2) (k7\_xcmplx\_0 X0 X1))))))))$$