

t47_complex1
(TMQ2QPQUmovzYWY151GHMyZ7CyfVd7hwde2)

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Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $k6_numbers : \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k17_complex1 : \iota \Rightarrow \iota$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $v3_xxreal_0 : \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $np_0 : \iota$ be given. Let $k16_complex1 : \iota \Rightarrow \iota$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow ((r1_xxreal_0 X0 X1) \Rightarrow ((v1_xboole_0 X0) \vee ((v2_xxreal_0 X1) \vee (v3_xxreal_0 X0)))))) \quad (1)$$

Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (X0 = k1_xboole_0) \quad (2)$$

Assume the following.

$$v1_xboole_0 np_0 \quad (3)$$

Assume the following.

$$r1_xxreal_0 np_0 np_0 \quad (4)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (5)$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow (k17_complex1 X0 = k16_complex1 X0) \quad (6)$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow ((v1_xreal_0 (k16_complex1 X0)) \wedge (\neg v3_xxreal_0 (k16_complex1 X0))) \quad (7)$$

Assume the following.

$$\forall X0.((\neg v1_xboole_0 X0) \wedge (v1_xcmplx_0 X0)) \Rightarrow ((\neg v1_xboole_0 (k16_complex1 X0)) \wedge (v1_xreal_0 (k16_complex1 X0))) \quad (8)$$

Assume the following.

$$(v1_xboole_0 (k16_complex1 k6_numbers)) \wedge (v1_xreal_0 (k16_complex1 k6_numbers)) \quad (9)$$

Assume the following.

$$\forall X0. (v1_xreal_0 X0) \Rightarrow (v1_xxreal_0 X0) \quad (10)$$

Assume the following.

$$\forall X0. ((v1_xxreal_0 X0) \wedge (v2_xxreal_0 X0)) \Rightarrow ((\neg v1_xboole_0 X0) \wedge ((v1_xxreal_0 X0) \wedge (\neg v3_xxreal_0 X0))) \quad (11)$$

Theorem 1

$$\forall X0. (v1_xcmplx_0 X0) \Rightarrow ((\neg (X0 \neq k6_numbers) \wedge (r1_xxreal_0 (k17_complex1 X0) k6_numbers)) \wedge (\neg (\neg r1_xxreal_0 (k17_complex1 X0) k6_numbers) \wedge (X0 = k6_numbers)))$$