

t123_xreal_1

(TMFj4MeumWF4R77TocWZJPKfoaJFnoJx8Lh)

October 27, 2020

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 $k5_xcmplx_0 : \iota \Rightarrow \iota$ be given. Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $v3_xxreal_0 : \iota \Rightarrow o$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow (k5_xcmplx_0 (k5_xcmplx_0 X0) = X0) \quad (1)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow ((v1_xcmplx_0 (k5_xcmplx_0 X0)) \wedge (v1_xreal_0 (k5_xcmplx_0 X0))) \quad (2)$$

Assume the following.

$$\forall X0.((\neg v3_xxreal_0 X0) \wedge (v1_xreal_0 X0)) \Rightarrow ((v1_xcmplx_0 (k5_xcmplx_0 X0)) \wedge (\neg v3_xxreal_0 (k5_xcmplx_0 X0))) \quad (3)$$

Assume the following.

$$\forall X0.((v3_xxreal_0 X0) \wedge (v1_xreal_0 X0)) \Rightarrow ((v1_xcmplx_0 (k5_xcmplx_0 X0)) \wedge (v3_xxreal_0 (k5_xcmplx_0 X0))) \quad (4)$$

Assume the following.

$$\forall X0.(v1_xxreal_0 X0) \Rightarrow ((v3_xxreal_0 X0) \Leftrightarrow (\neg r1_xxreal_0 k6_numbers X0)) \quad (5)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (v1_xxreal_0 X0) \quad (6)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (v1_xcmplx_0 X0) \quad (7)$$

Theorem 1

$$\forall X0.(v1_xreal_0 X0) \Rightarrow ((\neg(\neg r1_xxreal_0 k6_numbers X0) \wedge (r1_xxreal_0 k6_numbers (k5_xcmplx_0 X0))) \wedge (\neg(\neg r1_xxreal_0 k6_numbers (k5_xcmplx_0 X0)) \wedge (r1_xxreal_0 k6_numbers X0)))$$