

t16_xreal_1

(TMMKfLVAUimi4AsZ1oCjKd1VzUjToCjGq4i)

October 27, 2020

Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $k4_xcmplx_0 : \iota \Rightarrow \iota$ be given. Let $k2_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. ((v1_xcmplx_0 X0) \wedge (v1_xcmplx_0 X1)) \Rightarrow (k6_xcmplx_0 (k4_xcmplx_0 X0) (k4_xcmplx_0 X1) = k6_xcmplx_0 X1 X0) \tag{1}$$

Assume the following.

$$\forall X0. \forall X1. ((v1_xcmplx_0 X0) \wedge (v1_xcmplx_0 X1)) \Rightarrow (k2_xcmplx_0 X0 (k4_xcmplx_0 X1) = k6_xcmplx_0 X0 X1) \tag{2}$$

Assume the following.

$$\forall X0. (v1_xreal_0 X0) \Rightarrow (\forall X1. (v1_xreal_0 X1) \Rightarrow (\forall X2. (v1_xreal_0 X2) \Rightarrow (\forall X3. (v1_xreal_0 X3) \Rightarrow ((r1_xxreal_0 (k2_xcmplx_0 X0 X1) (k2_xcmplx_0 X2 X3)) \Rightarrow (r1_xxreal_0 (k6_xcmplx_0 X0 X2) (k6_xcmplx_0 X3 X1))))))) \tag{3}$$

Assume the following.

$$\forall X0. (v1_xreal_0 X0) \Rightarrow ((v1_xcmplx_0 (k4_xcmplx_0 X0)) \wedge (v1_xreal_0 (k4_xcmplx_0 X0))) \tag{4}$$

Assume the following.

$$\forall X0. (v1_xreal_0 X0) \Rightarrow (v1_xcmplx_0 X0) \tag{5}$$

Theorem 1

$$\forall X0. (v1_xreal_0 X0) \Rightarrow (\forall X1. (v1_xreal_0 X1) \Rightarrow (\forall X2. (v1_xreal_0 X2) \Rightarrow (\forall X3. (v1_xreal_0 X3) \Rightarrow ((r1_xxreal_0 (k6_xcmplx_0 X0 X1) (k6_xcmplx_0 X2 X3)) \Rightarrow (r1_xxreal_0 (k6_xcmplx_0 X0 X2) (k6_xcmplx_0 X1 X3)))))))$$