

t2_int_2
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October 27, 2020

Let $v1_int_1 : \iota \Rightarrow o$ be given. Let $r1_int_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. ((v1_xcmplx_0 X0) \wedge ((v1_xcmplx_0 X1) \wedge (v1_xcmplx_0 X2))) \Rightarrow (k3_xcmplx_0 (k3_xcmplx_0 X0 X1) X2 = k3_xcmplx_0 X0 (k3_xcmplx_0 X1 X2)) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. ((v1_int_1 X0) \wedge (v1_int_1 X1)) \Rightarrow (v1_int_1 (k3_xcmplx_0 X0 X1)) \quad (2)$$

Assume the following.

$$\forall X0. (v1_int_1 X0) \Rightarrow (\forall X1. (v1_int_1 X1) \Rightarrow ((r1_int_1 X0 X1) \Leftrightarrow (\exists X2. (v1_int_1 X2) \wedge (X1 = k3_xcmplx_0 X0 X2)))) \quad (3)$$

Assume the following.

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

Assume the following.

$$\forall X0. (v1_int_1 X0) \Rightarrow (v1_xreal_0 X0) \quad (5)$$

Theorem 1

$$\forall X0. (v1_int_1 X0) \Rightarrow (\forall X1. (v1_int_1 X1) \Rightarrow (\forall X2. (v1_int_1 X2) \Rightarrow ((r1_int_1 X0 X1) \Rightarrow (r1_int_1 X0 (k3_xcmplx_0 X1 X2)))))$$