

t1_int_2

(TMQFF6RkXvTMiXwLCyF78u9MRAy4RDXB2sA)

October 27, 2020

Let $v1_int_1 : \iota \Rightarrow o$ be given. Let $r1_int_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $k6_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r2_int_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow (\forall X1.(v1_xcmplx_0 X1) \Rightarrow (X0 = k6_xcmplx_0 (k2_xcmplx_0 X0 X1) X1)) \quad (1)$$

Assume the following.

$$\forall X0.(v1_int_1 X0) \Rightarrow (\forall X1.(v1_int_1 X1) \Rightarrow (\forall X2.(v1_int_1 X2) \Rightarrow ((r2_int_1 X0 X1 X2) \Leftrightarrow (r2_int_1 (k2_xcmplx_0 X0 X2) X1 X2)))) \quad (2)$$

Assume the following.

$$\forall X0.(v1_int_1 X0) \Rightarrow (\forall X1.(v1_int_1 X1) \Rightarrow (\forall X2.(v1_int_1 X2) \Rightarrow (\forall X3.(v1_int_1 X3) \Rightarrow (((r2_int_1 X0 X1 X2) \wedge (r2_int_1 X1 X3 X2)) \Rightarrow (r2_int_1 X0 X3 X2)))))) \quad (3)$$

Assume the following.

$$\forall X0.(v1_int_1 X0) \Rightarrow (\forall X1.(v1_int_1 X1) \Rightarrow (\forall X2.(v1_int_1 X2) \Rightarrow ((r2_int_1 X0 X1 X2) \Rightarrow (r2_int_1 X1 X0 X2)))) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.((v1_int_1 X0) \wedge (v1_int_1 X1)) \Rightarrow (v1_int_1 (k2_xcmplx_0 X0 X1)) \quad (5)$$

Assume the following.

$$\forall X0.(v1_int_1 X0) \Rightarrow (\forall X1.(v1_int_1 X1) \Rightarrow (\forall X2.(v1_int_1 X2) \Rightarrow ((r2_int_1 X0 X1 X2) \Leftrightarrow (r1_int_1 X2 (k6_xcmplx_0 X0 X1)))))) \quad (6)$$

Assume the following.

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

Assume the following.

$$\forall X0.(v1_int_1 X0) \Rightarrow (v1_xreal_0 X0) \quad (8)$$

Theorem 1

$$\begin{aligned} & \forall X0.(v1_int_1 X0) \Rightarrow (\forall X1.(v1_int_1 X1) \Rightarrow (\forall X2. \\ & (v1_int_1 X2) \Rightarrow ((r1_int_1 X0 X1) \wedge (r1_int_1 X0 (k2_xcmplx_0 X1 \\ & X2)))) \Rightarrow (r1_int_1 X0 X2))) \end{aligned}$$