

t116_xcplx_1
(TMK56GahBKjWYszcxs3TQKYAHjMMuDtV2ds)

October 27, 2020

Let $v1_xcplx_0 : \iota \Rightarrow o$ be given. Let $k6_numbers : \iota$ be given. Let $k2_xcplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_xcplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_xcplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(v1_xcplx_0 X0) \Rightarrow (\forall X1.(v1_xcplx_0 X1) \Rightarrow (\forall X2. \\ & (v1_xcplx_0 X2) \Rightarrow (k2_xcplx_0 (k7_xcplx_0 X0 X1) (k7_xcplx_0 \\ & X2 X1) = k7_xcplx_0 (k2_xcplx_0 X0 X2) X1))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.(v1_xcplx_0 X0) \Rightarrow (\forall X1.(v1_xcplx_0 X1) \Rightarrow (\forall X2. \\ & (v1_xcplx_0 X2) \Rightarrow ((X0 \neq k6_numbers) \Rightarrow (k7_xcplx_0 X1 X2 = k7_xcplx_0 \\ & (k3_xcplx_0 X1 X0) (k3_xcplx_0 X2 X0)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xcplx_0 X0) \wedge (v1_xcplx_0 X1)) \Rightarrow (v1_xcplx_0 (k3_xcplx_0 X0 X1)) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xcplx_0 X0) \wedge (v1_xcplx_0 X1)) \Rightarrow (k3_xcplx_0 X0 X1 = k3_xcplx_0 X1 X0) \quad (4)$$

Theorem 1

$$\begin{aligned} & \forall X0.(v1_xcplx_0 X0) \Rightarrow (\forall X1.(v1_xcplx_0 X1) \Rightarrow (\forall X2. \\ & (v1_xcplx_0 X2) \Rightarrow (\forall X3.(v1_xcplx_0 X3) \Rightarrow (\neg(X0 \neq k6_numbers) \wedge \\ & ((X1 \neq k6_numbers) \wedge (k2_xcplx_0 (k7_xcplx_0 X2 X0) (k7_xcplx_0 \\ & X3 X1) \neq k7_xcplx_0 (k2_xcplx_0 (k3_xcplx_0 X2 X1) (k3_xcplx_0 \\ & X3 X0)) (k3_xcplx_0 X0 X1))))))) \end{aligned}$$