

t211_xcmlpx_1
(TMGXvG9B72GiW5AUeQJJRqqGwXudmUi2P4m)

October 27, 2020

Let $v1_xcmlpx_0 : \iota \Rightarrow o$ be given. Let $k6_numbers : \iota$ be given. Let $k2_xcmlpx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_xcmlpx_0 : \iota \Rightarrow \iota$ be given. Let $k3_xcmlpx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_xcmlpx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(v1_xcmlpx_0 X0) \Rightarrow (\forall X1.(v1_xcmlpx_0 X1) \Rightarrow ((X0 \neq k6_numbers) \Rightarrow (k7_xcmlpx_0 X0 (k7_xcmlpx_0 X0 X1) = X1))) \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((v1_xcmlpx_0 X0) \wedge ((v1_xcmlpx_0 X1) \wedge (v1_xcmlpx_0 X2))) \Rightarrow (k3_xcmlpx_0 (k2_xcmlpx_0 X0 X1) X2 = k2_xcmlpx_0 (k3_xcmlpx_0 X0 X2) (k3_xcmlpx_0 X1 X2)) \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xcmlpx_0 X0) \wedge (v1_xcmlpx_0 X1)) \Rightarrow (k3_xcmlpx_0 X0 (k5_xcmlpx_0 X1) = k7_xcmlpx_0 X0 X1) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xcmlpx_0 X0) \wedge (v1_xcmlpx_0 X1)) \Rightarrow (k3_xcmlpx_0 (k5_xcmlpx_0 X0) (k5_xcmlpx_0 X1) = k5_xcmlpx_0 (k3_xcmlpx_0 X0 X1)) \quad (4)$$

Assume the following.

$$\forall X0.(v1_xcmlpx_0 X0) \Rightarrow (\forall X1.(v1_xcmlpx_0 X1) \Rightarrow ((X0 \neq k6_numbers) \Rightarrow (k3_xcmlpx_0 (k7_xcmlpx_0 X1 X0) X0 = X1))) \quad (5)$$

Assume the following.

$$\forall X0.(v1_xcmlpx_0 X0) \Rightarrow (k5_xcmlpx_0 (k5_xcmlpx_0 X0) = X0) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xcmlpx_0 X0) \wedge (v1_xcmlpx_0 X1)) \Rightarrow (v1_xcmlpx_0 (k3_xcmlpx_0 X0 X1)) \quad (7)$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow (v1_xcmplx_0 (k5_xcmplx_0 X0)) \quad (8)$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow (\forall X1.(v1_xcmplx_0 X1) \Rightarrow (k7_xcmplx_0 X0 X1 = k3_xcmplx_0 X0 (k5_xcmplx_0 X1))) \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xcmplx_0 X0) \wedge (v1_xcmplx_0 X1)) \Rightarrow (k3_xcmplx_0 X0 X1 = k3_xcmplx_0 X1 X0) \quad (10)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xcmplx_0 X0) \wedge (v1_xcmplx_0 X1)) \Rightarrow (k2_xcmplx_0 X0 X1 = k2_xcmplx_0 X1 X0) \quad (11)$$

Theorem 1

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow (\forall X1.(v1_xcmplx_0 X1) \Rightarrow (\neg (X0 \neq k6_numbers) \wedge ((X1 \neq k6_numbers) \wedge (k2_xcmplx_0 (k5_xcmplx_0 X0) (k5_xcmplx_0 X1) \neq k3_xcmplx_0 (k2_xcmplx_0 X0 X1) (k5_xcmplx_0 (k3_xcmplx_0 X0 X1)))))))$$