

l57_xcplx_1

(TMdpQ5n9AHegTYEtm5kCVXY2F9hMzFF67pk)

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

$$\forall X0. \forall X1. \forall X2. ((v1_xcplx_0 X0) \wedge ((v1_xcplx_0 X1) \wedge (v1_xcplx_0 X2))) \Rightarrow (k3_xcplx_0 X0 (k7_xcplx_0 X1 X2) = k7_xcplx_0 (k3_xcplx_0 X0 X1) X2) \quad (1)$$

Assume the following.

$$\forall X0. (v1_xcplx_0 X0) \Rightarrow (\forall X1. (v1_xcplx_0 X1) \Rightarrow (\forall X2. (v1_xcplx_0 X2) \Rightarrow (k7_xcplx_0 X0 (k7_xcplx_0 X1 X2) = k7_xcplx_0 (k3_xcplx_0 X0 X2) X1))) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. ((v1_xcplx_0 X0) \wedge (v1_xcplx_0 X1)) \Rightarrow (v1_xcplx_0 (k7_xcplx_0 X0 X1)) \quad (3)$$

Assume the following.

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

Assume the following.

$$\forall X0. \forall X1. ((v1_xcplx_0 X0) \wedge (v1_xcplx_0 X1)) \Rightarrow (k3_xcplx_0 X0 X1 = k3_xcplx_0 X1 X0) \quad (5)$$

Theorem 1

$$\forall X0. (v1_xcplx_0 X0) \Rightarrow (\forall X1. (v1_xcplx_0 X1) \Rightarrow (\forall X2. (v1_xcplx_0 X2) \Rightarrow (\forall X3. (v1_xcplx_0 X3) \Rightarrow (k3_xcplx_0 (k7_xcplx_0 X0 X1) (k7_xcplx_0 X2 X3) = k7_xcplx_0 (k3_xcplx_0 X0 X2) (k3_xcplx_0 X1 X3))))))$$