

t113_xcmlx_1
(TMHHrNt21FkBtJT5BgMMG7JHo4UeuyttGmz)

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Let $v1_xcmlx_0 : \iota \Rightarrow o$ be given. Let $k6_numbers : \iota$ be given. Let $k2_xcmlx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_xcmlx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_xcmlx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} \forall X0.(v1_xcmlx_0 X0) \Rightarrow (\forall X1.(v1_xcmlx_0 X1) \Rightarrow (\forall X2. \\ (v1_xcmlx_0 X2) \Rightarrow (k2_xcmlx_0 (k7_xcmlx_0 X0 X1) (k7_xcmlx_0 \\ X2 X1) = k7_xcmlx_0 (k2_xcmlx_0 X0 X2) X1))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0.(v1_xcmlx_0 X0) \Rightarrow (\forall X1.(v1_xcmlx_0 X1) \Rightarrow ((X0 \neq k6_numbers) \Rightarrow (X1 = k7_xcmlx_0 (k3_xcmlx_0 X1 X0) X0))) \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xcmlx_0 X0) \wedge (v1_xcmlx_0 X1)) \Rightarrow (v1_xcmlx_0 (k3_xcmlx_0 X0 X1)) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xcmlx_0 X0) \wedge (v1_xcmlx_0 X1)) \Rightarrow (k3_xcmlx_0 X0 X1 = k3_xcmlx_0 X1 X0) \quad (4)$$

Theorem 1

$$\begin{aligned} \forall X0.(v1_xcmlx_0 X0) \Rightarrow (\forall X1.(v1_xcmlx_0 X1) \Rightarrow (\forall X2. \\ (v1_xcmlx_0 X2) \Rightarrow ((X0 \neq k6_numbers) \Rightarrow (k2_xcmlx_0 (k7_xcmlx_0 \\ X1 X0) X2 = k7_xcmlx_0 (k2_xcmlx_0 X1 (k3_xcmlx_0 X0 X2)) X0)))) \end{aligned}$$