

t74_member_1
(TMNa6Fk1FMMeVQgg7JFjNg5aoPSTN644QZv)

October 27, 2020

Let $v1_membered : \iota \Rightarrow o$ be given. Let $k11_member_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_member_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_member_1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(v1_membered X0) \Rightarrow (\forall X1.(v1_membered X1) \Rightarrow (k5_member_1 (k11_member_1 X0 X1) = k9_member_1 (k5_member_1 X0) X1)) \quad (1)$$

Assume the following.

$$\forall X0.(v1_membered X0) \Rightarrow (\forall X1.(v1_membered X1) \Rightarrow (\forall X2.(v1_membered X2) \Rightarrow (k9_member_1 (k9_member_1 X0 X1) X2 = k9_member_1 X0 (k9_member_1 X1 X2)))) \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.((v1_membered X0) \wedge (v1_membered X1)) \Rightarrow (v1_membered (k11_member_1 X0 X1)) \quad (3)$$

Assume the following.

$$\forall X0.(v1_membered X0) \Rightarrow (v1_membered (k5_member_1 X0)) \quad (4)$$

Assume the following.

$$\forall X0.(v1_membered X0) \Rightarrow (\forall X1.(v1_membered X1) \Rightarrow (k11_member_1 X0 X1 = k9_member_1 X0 (k5_member_1 X1))) \quad (5)$$

Theorem 1

$$\forall X0.(v1_membered X0) \Rightarrow (\forall X1.(v1_membered X1) \Rightarrow (\forall X2.(v1_membered X2) \Rightarrow (k11_member_1 X0 (k11_member_1 X1 X2) = k9_member_1 (k11_member_1 X0 X1) X2)))$$