

t16_member_1 (TM- cAcZHZdNBVtEPc54afmFtcGFwCbe41VG9)

October 27, 2020

Let $v1_membered : \iota \Rightarrow o$ be given. Let $k5_member_1 : \iota \Rightarrow \iota$ be given. Let $k3_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $k1_binop_2 : \iota \Rightarrow \iota$ be given. Let $k2_numbers : \iota$ be given. Assume the following.

$$\forall X0. \forall X1. (X0 \in X1) \Rightarrow (m1_subset_1 X0 X1) \quad (1)$$

Assume the following.

$$\forall X0. (v1_membered X0) \Rightarrow (\forall X1. (v1_xcmplx_0 X1) \Rightarrow ((k1_binop_2 X1 \in X0) \Leftrightarrow (X1 \in k5_member_1 X0))) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (v1_membered X0) \Rightarrow (v1_membered (k3_xboole_0 X1 X0)) \quad (3)$$

Assume the following.

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

Assume the following.

$$\forall X0. \forall X1. \forall X2. (X2 = k3_xboole_0 X0 X1) \Leftrightarrow (\forall X3. (X3 \in X2) \Leftrightarrow ((X3 \in X0) \wedge (X3 \in X1))) \quad (5)$$

Assume the following.

$$\forall X0. (v1_membered X0) \Rightarrow (k5_member_1 X0 = ReplSep (toset (\lambda X1 : \iota. m1_subset_1 X1 k2_numbers)) (\lambda X1 : \iota. X1 \in X0) (\lambda X1 : \iota. k1_binop_2 X1))) \quad (6)$$

Assume the following.

$$\forall X0. (v1_membered X0) \Rightarrow (\forall X1. (m1_subset_1 X1 X0) \Rightarrow (v1_xcmplx_0 X1)) \quad (7)$$

Theorem 1

$$\forall X0. (v1_membered X0) \Rightarrow (\forall X1. (v1_membered X1) \Rightarrow (k5_member_1 (k3_xboole_0 X0 X1) = k3_xboole_0 (k5_member_1 X0) (k5_member_1 X1)))$$