# t166_member_1 (TMUfTexP1Eb5x3VShXywa5HehpoFXzHmjQf)

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Let $v1\_membered : \iota \Rightarrow o$ be given. Let $v1\_xcmplx\_0 : \iota \Rightarrow o$ be given. Let $k19\_member\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5\_member\_1 : \iota \Rightarrow \iota$ be given. Let $k17\_member\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_tarski : \iota \Rightarrow \iota$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $k11\_member\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9\_member\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(v1\_membered\ X0) \Rightarrow (\forall X1.(v1\_membered\ X1) \Rightarrow (k5\_member\_1\ (k6\_subset\_1\ X0\ X1) = k6\_subset\_1\ (k5\_member\_1\ X0)\ (k5\_member\_1\ X1))) \tag{1}$$

Assume the following.

$$\forall X0.(v1\_membered\ X0) \Rightarrow (\forall X1.(v1\_membered\ X1) \Rightarrow (\forall X2.(v1\_xcmplx\_0\ X2) \Rightarrow (k17\_member\_1\ (k6\_subset\_1\ X0\ X1)\ X2 = k6\_subset\_1\ (k17\_member\_1\ X0\ X2)\ (k17\_member\_1\ X1\ X2)))) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.k6\_subset\_1\ X0\ X1 = k4\_xboole\_0\ X0\ X1 \tag{3}$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0\ X0) \Rightarrow (v1\_membered\ (k1\_tarski\ X0)) \tag{4}$$

Assume the following.

$$\forall X0.((\neg v1\_xboole\_0\ X0) \wedge (v1\_membered\ X0)) \Rightarrow ((\neg v1\_xboole\_0\ (k5\_member\_1\ X0)) \wedge (v1\_membered\ (k5\_member\_1\ X0))) \tag{5}$$

Assume the following.

$$\forall X0.(v1\_xboole\_0\ X0) \Rightarrow ((v1\_xboole\_0\ (k5\_member\_1\ X0)) \wedge (v1\_membered\ (k5\_member\_1\ X0))) \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.(v1\_membered\ X0)\Rightarrow(v1\_membered\ (k4\_xboole\_0\ X0\ X1)) \tag{7}$$

Assume the following.

$$\forall X0.(v1\_membered\ X0)\Rightarrow(\forall X1.(v1\_membered\ X1)\Rightarrow(k11\_member\_1\ X0\ X1 = k9\_member\_1\ X0\ (k5\_member\_1\ X1))) \tag{8}$$

Assume the following.

$$\forall X0.(v1\_membered\ X0)\Rightarrow(\forall X1.(v1\_xcmplx\_0\ X1)\Rightarrow(k19\_member\_1\ X0\ X1 = k11\_member\_1\ (k1\_tarski\ X1)\ X0)) \tag{9}$$

Assume the following.

$$\forall X0.(v1\_membered\ X0)\Rightarrow(\forall X1.(v1\_xcmplx\_0\ X1)\Rightarrow(k17\_member\_1\ X0\ X1 = k9\_member\_1\ (k1\_tarski\ X1)\ X0)) \tag{10}$$

**Theorem 1**

$$\forall X0.(v1\_membered\ X0)\Rightarrow(\forall X1.(v1\_membered\ X1)\Rightarrow(\forall X2.(v1\_xcmplx\_0\ X2)\Rightarrow(k19\_member\_1\ (k6\_subset\_1\ X0\ X1)\ X2 = k6\_subset\_1\ (k19\_member\_1\ X0\ X2)\ (k19\_member\_1\ X1\ X2))))$$