

t167\_member\_1  
(TMUpXsfVM2oE9Ay5jvyrnthZKkqBfsJbCQh)

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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  $k5\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k5\_member\_1 : \iota \Rightarrow \iota$  be given. Let  $k17\_member\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_tarski : \iota \Rightarrow \iota$  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.

$$\forall X0.(v1\_membered X0) \Rightarrow (\forall X1.(v1\_membered X1) \Rightarrow (k5\_member\_1 (k5\_xboole\_0 X0 X1) = k5\_xboole\_0 (k5\_member\_1 X0) (k5\_member\_1 X1))) \quad (1)$$

Assume the following.

$$\forall X0.(v1\_membered X0) \Rightarrow (\forall X1.(v1\_membered X1) \Rightarrow (\forall X2.(v1\_xcmplx\_0 X2) \Rightarrow (k17\_member\_1 (k5\_xboole\_0 X0 X1) X2 = k5\_xboole\_0 (k17\_member\_1 X0 X2) (k17\_member\_1 X1 X2)))) \quad (2)$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0 X0) \Rightarrow (v1\_membered (k1\_tarski X0)) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.((v1\_membered X0) \wedge (v1\_membered X1)) \Rightarrow (v1\_membered (k5\_xboole\_0 X0 X1)) \quad (4)$$

Assume the following.

$$\forall X0.(v1\_membered X0) \Rightarrow (v1\_membered (k5\_member\_1 X0)) \quad (5)$$

Assume the following.

$$\forall X0.(v1\_membered X0) \Rightarrow (\forall X1.(v1\_membered X1) \Rightarrow (k11\_member\_1 X0 X1 = k9\_member\_1 X0 (k5\_member\_1 X1))) \quad (6)$$

Assume the following.

$$\forall X0.(v1\_membered X0) \Rightarrow (\forall X1.(v1\_xcmplx\_0 X1) \Rightarrow (k19\_member\_1 X0 X1 = k11\_member\_1 (k1\_tarski X1) X0)) \quad (7)$$

Assume the following.

$$\forall X0.(v1\_membered\ X0) \Rightarrow (\forall X1.(v1\_xcmplx\_0\ X1) \Rightarrow (k17\_member\_1\ X0\ X1 = k9\_member\_1\ (k1\_tarski\ X1)\ X0)) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.k5\_xboole\_0\ X0\ X1 = k5\_xboole\_0\ X1\ X0 \quad (9)$$

**Theorem 1**

$$\forall X0.(v1\_membered\ X0) \Rightarrow (\forall X1.(v1\_membered\ X1) \Rightarrow (\forall X2.(v1\_xcmplx\_0\ X2) \Rightarrow (k19\_member\_1\ (k5\_xboole\_0\ X0\ X1)\ X2 = k5\_xboole\_0\ (k19\_member\_1\ X0\ X2)\ (k19\_member\_1\ X1\ X2))))$$