t18_member_1 (TMWhRRT2t59HXZ4Zxhd6MY6XEFqZ2C6QkmR)

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Let $v1\_membered : \iota \Rightarrow o$ be given. Let $k5\_member\_1 : \iota \Rightarrow \iota$ be given. Let $k5\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ 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.

$$\forall X0.(v1\_membered\ X0) \Rightarrow (\forall X1.(v1\_membered\ X1) \Rightarrow (k5\_member\_1\ (k2\_xboole\_0\ X0\ X1) = k2\_xboole\_0\ (k5\_member\_1\ X0)\ (k5\_member\_1\ X1))) \tag{2}$$

Assume the following.

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

Assume the following.

$$\forall X0.\forall X1.(v1\_membered\ X0) \Rightarrow (v1\_membered\ (k4\_xboole\_0\ X0\ X1)) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.k5\_xboole\_0\ X0\ X1 = k2\_xboole\_0\ (k4\_xboole\_0\ X0\ X1)\ (k4\_xboole\_0\ X1\ X0) \tag{5}$$

Theorem 1

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