# t72_member_1 (TMWDuNubuJSNnTFc-SoRqi6w2czaWfKHkXHJ)

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Let $v1\_membered : \iota{\Rightarrow}o$ be given. Let $k9\_member\_1 : \iota{\Rightarrow}\iota{\Rightarrow}\iota$ be given. Let $k11\_member\_1 : \iota{\Rightarrow}\iota{\Rightarrow}\iota$ be given. Let $k5\_member\_1 : \iota{\Rightarrow}\iota$ be given. Assume the following.

$$\forall X0.(v1\_membered\ X0){\Rightarrow}(\forall X1.(v1\_membered\ X1){\Rightarrow}(\forall X2.$$
$$(v1\_membered\ X2){\Rightarrow}(k9\_member\_1\ (k9\_member\_1\ X0\ X1)\ X2 = k9\_member\_1$$
$$X0\ (k9\_member\_1\ X1\ X2))))$$

$$(1)$$

Assume the following.

$$\forall X0.\forall X1.((v1\_membered\ X0){\wedge}(v1\_membered\ X1)){\Rightarrow}($$
$$v1\_membered\ (k9\_member\_1\ X0\ X1))$$

$$(2)$$

Assume the following.

$$\forall X0.(v1\_membered\ X0){\Rightarrow}(v1\_membered\ (k5\_member\_1\ X0)) \qquad (3)$$

Assume the following.

$$\forall X0.(v1\_membered\ X0){\Rightarrow}(\forall X1.(v1\_membered\ X1){\Rightarrow}(k11\_member\_1$$
$$X0\ X1 = k9\_member\_1\ X0\ (k5\_member\_1\ X1))) \qquad (4)$$

**Theorem 1**

$$\forall X0.(v1\_membered\ X0){\Rightarrow}(\forall X1.(v1\_membered\ X1){\Rightarrow}(\forall X2.$$
$$(v1\_membered\ X2){\Rightarrow}(k9\_member\_1\ X0\ (k11\_member\_1\ X1\ X2) = k11\_member\_1$$
$$(k9\_member\_1\ X0\ X1)\ X2)))$$