# t108_member_1 (TMdqoQmyYVbRd-hVk4sKWqZrSvqPejdd4Hdo)

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Let $v2\_membered : \iota \Rightarrow o$ be given. Let $k14\_member\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k12\_member\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6\_member\_1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(v2\_membered\ X0) \Rightarrow (\forall X1.(v2\_membered\ X1) \Rightarrow (\forall X2.\ (v2\_membered\ X2) \Rightarrow (k12\_member\_1\ (k12\_member\_1\ X0\ X1)\ X2 = k12\_member\_1\ X0\ (k12\_member\_1\ X1\ X2)))) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.((v2\_membered\ X0) \wedge (v2\_membered\ X1)) \Rightarrow (v2\_membered\ (k12\_member\_1\ X0\ X1)) \tag{2}$$

Assume the following.

$$\forall X0.(v2\_membered\ X0) \Rightarrow (v2\_membered\ (k6\_member\_1\ X0)) \tag{3}$$

Assume the following.

$$\forall X0.(v2\_membered\ X0) \Rightarrow (\forall X1.(v2\_membered\ X1) \Rightarrow (k14\_member\_1\ X0\ X1 = k12\_member\_1\ X0\ (k6\_member\_1\ X1))) \tag{4}$$

**Theorem 1**

$$\forall X0.(v2\_membered\ X0) \Rightarrow (\forall X1.(v2\_membered\ X1) \Rightarrow (\forall X2.\ (v2\_membered\ X2) \Rightarrow (k14\_member\_1\ (k12\_member\_1\ X0\ X1)\ X2 = k12\_member\_1\ X0\ (k14\_member\_1\ X1\ X2))))$$