t96_member_1 (TMQLm7KEeH6eDYgb2PQ8jrnxAtnSaSekxHf)

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Let $v1\_membered : \iota \Rightarrow o$ be given. Let $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k13\_member\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k11\_member\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9\_member\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5\_member\_1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(v1\_membered\ X0) \Rightarrow (\forall X1.(v1\_membered\ X1) \Rightarrow (\forall X2.\ (v1\_membered\ X2) \Rightarrow (r1\_tarski\ (k13\_member\_1\ X0\ (k9\_member\_1\ X1\ X2))\ (k9\_member\_1\ (k13\_member\_1\ X0\ X1)\ (k13\_member\_1\ X0\ X2))))) \tag{1}$$

Assume the following.

$$\forall X0.(v1\_membered\ X0) \Rightarrow (\forall X1.(v1\_membered\ X1) \Rightarrow (k13\_member\_1\ X0\ (k5\_member\_1\ X1) = k5\_member\_1\ (k13\_member\_1\ X0\ X1))) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_membered\ X0) \wedge (v1\_membered\ X1)) \Rightarrow (v1\_membered\ (k13\_member\_1\ X0\ X1)) \tag{3}$$

Assume the following.

$$\forall X0.(v1\_membered\ X0) \Rightarrow (v1\_membered\ (k5\_member\_1\ X0)) \tag{4}$$

Assume the following.

$$\forall X0.(v1\_membered\ X0) \Rightarrow (\forall X1.(v1\_membered\ X1) \Rightarrow (k11\_member\_1\ X0\ X1 = k9\_member\_1\ X0\ (k5\_member\_1\ X1))) \tag{5}$$

Theorem 1

$$\forall X0.(v1\_membered\ X0) \Rightarrow (\forall X1.(v1\_membered\ X1) \Rightarrow (\forall X2.\ (v1\_membered\ X2) \Rightarrow (r1\_tarski\ (k13\_member\_1\ X0\ (k11\_member\_1\ X1\ X2))\ (k11\_member\_1\ (k13\_member\_1\ X0\ X1)\ (k13\_member\_1\ X0\ X2)))))$$