t77_member_1 (TMaUZa-jHuMKZ3pNXDC74xvmb9y5EPfZa62J)

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Let $v1\_xcmplx\_0 : \iota \Rightarrow o$ be given. Let $k11\_member\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_tarski : \iota \Rightarrow \iota$ be given. Let $k4\_binop\_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_membered : \iota \Rightarrow o$ be given. Let $k9\_member\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5\_member\_1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(v1\_xcmplx\_0\ X0) \Rightarrow (\forall X1.(v1\_xcmplx\_0\ X1) \Rightarrow (k11\_member\_1\ (k1\_tarski\ X0)\ (k1\_tarski\ X1) = k1\_tarski\ (k4\_binop\_2\ X0\ X1))) \tag{1}$$

Assume the following.

$$\forall X0.(v1\_membered\ X0) \Rightarrow (\forall X1.(v1\_membered\ X1) \Rightarrow (\forall X2.(v1\_membered\ X2) \Rightarrow (k9\_member\_1\ X0\ (k2\_xboole\_0\ X1\ X2) = k2\_xboole\_0\ (k9\_member\_1\ X0\ X1)\ (k9\_member\_1\ X0\ X2)))) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.k2\_tarski\ X0\ X1 = k2\_xboole\_0\ (k1\_tarski\ X0)\ (k1\_tarski\ X1) \tag{3}$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0\ X0) \Rightarrow (v1\_membered\ (k1\_tarski\ X0)) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xcmplx\_0\ X0) \wedge (v1\_xcmplx\_0\ X1)) \Rightarrow (v1\_membered\ (k2\_tarski\ X0\ X1)) \tag{5}$$

Assume the following.

$$\forall X0.(v1\_membered\ X0) \Rightarrow (v1\_membered\ (k5\_member\_1\ X0)) \tag{6}$$

Assume the following.

$$\forall X0.(v1\_membered\ X0) \Rightarrow (\forall X1.(v1\_membered\ X1) \Rightarrow (k11\_member\_1\ X0\ X1 = k9\_member\_1\ X0\ (k5\_member\_1\ X1))) \tag{7}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_membered\ X0)\wedge(v1\_membered\ X1))\Rightarrow(\\ k9\_member\_1\ X0\ X1 = k9\_member\_1\ X1\ X0) \tag{8}$$

Assume the following.

$$\forall X0.\forall X1.k2\_tarski\ X0\ X1 = k2\_tarski\ X1\ X0 \tag{9}$$

Theorem 1

$$\forall X0.(v1\_xcmplx\_0\ X0)\Rightarrow(\forall X1.(v1\_xcmplx\_0\ X1)\Rightarrow(\forall X2.\\ (v1\_xcmplx\_0\ X2)\Rightarrow(k11\_member\_1\ (k2\_tarski\ X0\ X1)\ (k1\_tarski\ X2) = \\ k2\_tarski\ (k4\_binop\_2\ X0\ X2)\ (k4\_binop\_2\ X1\ X2))))$$