t145_member_1 (TM-dyNm4wnCR9P75CFUavJGf5xjPxJ1Pw8Pu)

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Let $v1\_membered : \iota \Rightarrow o$ be given. Let $v1\_xcmplx\_0 : \iota \Rightarrow o$ be given. Let $k17\_member\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v1\_membered\ X0) \Rightarrow (\forall X1.(v1\_membered\ X1) \Rightarrow (\forall X2. \\ (v1\_xcmplx\_0\ X2) \Rightarrow ((r1\_tarski\ X0\ X1) \Leftrightarrow (r1\_tarski\ (k17\_member\_1 \\ X0\ X2)\ (k17\_member\_1\ X1\ X2))))) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.(X0 = X1) \Leftrightarrow ((r1\_tarski\ X0\ X1) \wedge (r1\_tarski\ X1\ X0)) \tag{2}$$

Theorem 1

$$\forall X0.(v1\_membered\ X0) \Rightarrow (\forall X1.(v1\_membered\ X1) \Rightarrow (\forall X2. \\ (v1\_xcmplx\_0\ X2) \Rightarrow ((k17\_member\_1\ X0\ X2 = k17\_member\_1\ X1\ X2) \Rightarrow (X0 = \\ X1))))$$