t193_member_1 (TMMuVXqhkFfuriMHh9ER9BnkfJxHNYhXCvZ)

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Let $v1\_membered : \iota \Rightarrow o$ be given. Let $v1\_xcmplx\_0 : \iota \Rightarrow o$ be given. Let $k5\_binop\_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k23\_member\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k13\_member\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_tarski : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(v1\_membered\ X0) \Rightarrow (\forall X1.(v1\_membered\ X1) \Rightarrow (\forall X2.(v1\_xcmplx\_0\ X2) \Rightarrow (\forall X3.(v1\_xcmplx\_0\ X3) \Rightarrow (((X2 \in X0) \wedge (X3 \in X1)) \Rightarrow (k5\_binop\_2\ X2\ X3 \in k13\_member\_1\ X0\ X1))))) \tag{1}$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0\ X0) \Rightarrow (v1\_membered\ (k1\_tarski\ X0)) \tag{2}$$

Assume the following.

$$\forall X0.(v1\_membered\ X0) \Rightarrow (\forall X1.(v1\_xcmplx\_0\ X1) \Rightarrow (k23\_member\_1\ X0\ X1 = k13\_member\_1\ (k1\_tarski\ X1)\ X0)) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.(X1 = k1\_tarski\ X0) \Leftrightarrow (\forall X2.(X2 \in X1) \Leftrightarrow (X2 = X0)) \tag{4}$$

Theorem 1

$$\forall X0.(v1\_membered\ X0) \Rightarrow (\forall X1.(v1\_xcmplx\_0\ X1) \Rightarrow (\forall X2.(v1\_xcmplx\_0\ X2) \Rightarrow ((X1 \in X0) \Rightarrow (k5\_binop\_2\ X2\ X1 \in k23\_member\_1\ X0\ X2))))$$