

## t78\_member\_1

(TMWLd293jT7kMDEavezE5jWxx2LML9a5mFd)

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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  $k2\_enumset1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_binop\_2 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k9\_member\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_binop\_2 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k5\_member\_1 : \iota \Rightarrow \iota$  be given. Let  $k1\_binop\_2 : \iota \Rightarrow \iota$  be given. Let  $k6\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_xcmplx\_0 : \iota \Rightarrow \iota$  be given. Let  $v1\_membered : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0.(v1\_xcmplx\_0 X0) \Rightarrow (\forall X1.(v1\_xcmplx\_0 X1) \Rightarrow (\forall X2. \\ & (v1\_xcmplx\_0 X2) \Rightarrow (\forall X3.(v1\_xcmplx\_0 X3) \Rightarrow (k9\_member\_1 \\ & (k2\_tarski X0 X1) (k2\_tarski X2 X3) = k2\_enumset1 (k3\_binop\_2 X0 \\ & X2) (k3\_binop\_2 X0 X3) (k3\_binop\_2 X1 X2) (k3\_binop\_2 X1 X3)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0 X0) \Rightarrow (\forall X1.(v1\_xcmplx\_0 X1) \Rightarrow (k5\_member\_1 (k2\_tarski X0 X1) = k2\_tarski (k1\_binop\_2 X0) (k1\_binop\_2 X1))) \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xcmplx\_0 X0) \wedge (v1\_xcmplx\_0 X1)) \Rightarrow (k4\_binop\_2 X0 X1 = k6\_xcmplx\_0 X0 X1) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xcmplx\_0 X0) \wedge (v1\_xcmplx\_0 X1)) \Rightarrow (k3\_binop\_2 X0 X1 = k2\_xcmplx\_0 X0 X1) \quad (4)$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0 X0) \Rightarrow (k1\_binop\_2 X0 = k4\_xcmplx\_0 X0) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xcmplx\_0 X0) \wedge (v1\_xcmplx\_0 X1)) \Rightarrow (v1\_membered (k2\_tarski X0 X1)) \quad (6)$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0 X0) \Rightarrow (v1\_xcmplx\_0 (k4\_xcmplx\_0 X0)) \quad (7)$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0 X0) \Rightarrow (\forall X1.(v1\_xcmplx\_0 X1) \Rightarrow (k6\_xcmplx\_0 X0 X1 = k2\_xcmplx\_0 X0 (k4\_xcmplx\_0 X1))) \quad (8)$$

Assume the following.

$$\forall X0.(v1\_membered X0) \Rightarrow (\forall X1.(v1\_membered X1) \Rightarrow (k11\_member\_1 X0 X1 = k9\_member\_1 X0 (k5\_member\_1 X1))) \quad (9)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.(v1\_xcmplx\_0 X0) \Rightarrow (\forall X1.(v1\_xcmplx\_0 X1) \Rightarrow (\forall X2. \\ & (v1\_xcmplx\_0 X2) \Rightarrow (\forall X3.(v1\_xcmplx\_0 X3) \Rightarrow (k11\_member\_1 \\ & (k2\_tarski X0 X1) (k2\_tarski X2 X3) = k2\_enumset1 (k4\_binop\_2 X0 \\ & X2) (k4\_binop\_2 X0 X3) (k4\_binop\_2 X1 X2) (k4\_binop\_2 X1 X3)))))) \end{aligned}$$