## t209\_member\_1 (TMTnnZL91HrfNcjNeVtxF4h42k5TKL6W2pY)

## October 27, 2020

Let  $v1\_membered : \iota \Rightarrow o$  be given. Let  $v1\_xcmplx\_0 : \iota \Rightarrow o$  be given. Let  $k23\_member\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k11\_member\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k13\_member\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k5\_member\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k9\_member\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_tarski : \iota \Rightarrow \iota$  be given. Assume the following.

 $\forall X0.(v1\_membered \ X0) \Rightarrow (\forall X1.(v1\_membered \ X1) \Rightarrow (k13\_member\_1 \ X0 \ (k5\_member\_1 \ X1) = k5\_member\_1 \ (k13\_member\_1 \ X0 \ X1)))$ (1)

Assume the following.

 $\forall X0.(v1\_membered \ X0) \Rightarrow (\forall X1.(v1\_membered \ X1) \Rightarrow (\forall X2.$   $(v1\_xcmplx\_0 \ X2) \Rightarrow (k23\_member\_1 \ (k9\_member\_1 \ X0 \ X1) \ X2 = k9\_member\_1 \ (k23\_member\_1 \ X0 \ X2) \ (k23\_member\_1 \ X1 \ X2))))$  (2)

Assume the following.

$$\forall X0.\forall X1.((v1\_membered \ X0) \land (v1\_xcmplx\_0 \ X1)) \Rightarrow ($$

$$v1\_membered \ (k23\_member\_1 \ X0 \ X1)) \qquad (3)$$

Assume the following.

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

Assume the following.

$$\forall X0.(v1\_membered \ X0) \Rightarrow (v1\_membered \ (k5\_member\_1 \ X0))$$
(5)

Assume the following.

$$\forall X0.(v1\_membered \ X0) \Rightarrow (\forall X1.(v1\_membered \ X1) \Rightarrow (k11\_member\_1 \ X0 \ X1 = k9\_member\_1 \ X0 \ (k5\_member\_1 \ X1)))$$
(6)

Assume the following.

$$\forall X0.(v1\_membered \ X0) \Rightarrow (\forall X1.(v1\_xcmplx\_0 \ X1) \Rightarrow (k23\_member\_1 \ X0 \ X1 = k13\_member\_1 \ (k1\_tarski \ X1) \ X0))$$
(7)

## Theorem 1

 $\begin{array}{l} \forall X0.(v1\_membered\ X0) \Rightarrow (\forall X1.(v1\_membered\ X1) \Rightarrow (\forall X2.\\ (v1\_xcmplx\_0\ X2) \Rightarrow (k23\_member\_1\ (k11\_member\_1\ X0\ X1)\ X2 = k11\_member\_1\ (k23\_member\_1\ X0\ X2)\ (k23\_member\_1\ X1\ X2)))) \end{array}$