## t229\_member\_1 (TML96rrbZDkRcSLcCrm3fPyzJPVwKkN7aMF)

## October 27, 2020

 $\begin{array}{l} \forall X0.(v1\_membered \ X0) \Rightarrow (\forall X1.(v1\_membered \ X1) \Rightarrow (k7\_member\_1 \ (k13\_member\_1 \ X0 \ X1) = k13\_member\_1 \ (k7\_member\_1 \ X0) \ (k7\_member\_1 \ X1))) \end{array}$ 

(1)

(3)

Assume the following.

 $\forall X0.(v1\_membered \ X0) \Rightarrow (\forall X1.(v1\_membered \ X1) \Rightarrow (($ r1\\_tarski X0 X1)  $\Leftrightarrow$  (r1\\_tarski (k7\\_member\\_1 X0) (k7\\_member\\_1 X1)))) (2)

Assume the following.

 $\begin{array}{l} \forall X0.(v1\_membered \ X0) \Rightarrow (\forall X1.(v1\_membered \ X1) \Rightarrow (\forall X2.\\ (v1\_xcmplx\_0 \ X2) \Rightarrow ((r1\_tarski \ (k25\_member\_1 \ X0 \ X2) \ (k25\_member\_1 \ X1 \ X2)) \Rightarrow ((X2 = k6\_numbers) \lor (r1\_tarski \ X0 \ X1))))) \end{array}$ 

Assume the following.

$$\forall X0.\forall X1.(v1\_membered \ X1) \Rightarrow ((r1\_tarski \ X0 \ X1) \Rightarrow (v1\_membered \ X0)) \tag{4}$$

Assume the following.

$$\forall X0.(v1\_membered \ X0) \Rightarrow (k7\_member\_1 \ (k7\_member\_1 \ X0) = X0)$$
(5)

Assume the following.

$$\forall X0.(v1\_xcmplx\_0 X0) \Rightarrow (v1\_membered (k1\_tarski X0))$$
(6)

Assume the following.

$$\forall X0.\forall X1.((v1\_membered \ X0) \land (v1\_xcmplx\_0 \ X1)) \Rightarrow (v1\_membered \ (k27\_member\_1 \ X0 \ X1))$$

$$(7)$$

Assume the following.

$$\forall X0.(v1\_membered \ X0) \Rightarrow (v1\_membered \ (k7\_member\_1 \ X0))$$
(8)

Assume the following.

$$\forall X0.(v1\_membered \ X0) \Rightarrow (\forall X1.(v1\_xcmplx\_0 \ X1) \Rightarrow (k27\_member\_1 \ X0 \ X1 = k15\_member\_1 \ X0 \ (k1\_tarski \ X1)))$$
(9)

Assume the following.

$$\forall X0.(v1\_membered \ X0) \Rightarrow (\forall X1.(v1\_xcmplx\_0 \ X1) \Rightarrow (k25\_member\_1 \ X0 \ X1 = k15\_member\_1 \ (k1\_tarski \ X1) \ X0))$$
(10)

Assume the following.

$$\forall X0.(v1\_membered \ X0) \Rightarrow (\forall X1.(v1\_membered \ X1) \Rightarrow (k15\_member\_1 \ X0 \ X1 = k13\_member\_1 \ X0 \ (k7\_member\_1 \ X1)))$$

Assume the following.

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

$$k13\_member\_1 \ X0 \ X1 = k13\_member\_1 \ X1 \ X0)$$

$$(12)$$

(11)

## Theorem 1

 $\begin{array}{l} \forall X0.(v1\_membered\ X0) \Rightarrow (\forall X1.(v1\_membered\ X1) \Rightarrow (\forall X2.\\ (v1\_xcmplx\_0\ X2) \Rightarrow ((r1\_tarski\ (k27\_member\_1\ X0\ X2)\ (k27\_member\_1\ X1\ X2)) \Rightarrow ((X2 = k6\_numbers) \lor (r1\_tarski\ X0\ X1))))) \end{array}$