

t98_member_1 (TMbh-
MUMS1WMGssN7NKegnSvE5UxeCFgJ2Hb)

October 27, 2020

Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $k13_member_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $k5_binop_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_membered : \iota \Rightarrow o$ be given. Let $k2_numbers : \iota$ be given. Assume the following.

$$\forall X0. \forall X1. (X0 \in X1) \Rightarrow (m1_subset_1 X0 X1) \quad (1)$$

Assume the following.

$$\forall X0. (v1_xcmplx_0 X0) \Rightarrow (v1_membered (k1_tarski X0)) \quad (2)$$

Assume the following.

$$\forall X0. (v1_xcmplx_0 X0) \Leftrightarrow (X0 \in k2_numbers) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. (X1 = k1_tarski X0) \Leftrightarrow (\forall X2. (X2 \in X1) \Leftrightarrow (X2 = X0)) \quad (4)$$

Assume the following.

$$\begin{aligned} \forall X0. (v1_membered X0) \Rightarrow (\forall X1. (v1_membered X1) \Rightarrow (k13_member_1 \\ X0 X1 = ReplSep2 (toset (\lambda X2 : \iota. m1_subset_1 X2 k2_numbers)) \\ (\lambda X2 : \iota. toset (\lambda X3 : \iota. m1_subset_1 X3 k2_numbers)) (\\ \lambda X2 : \iota. \lambda X3 : \iota. (X2 \in X0) \wedge (X3 \in X1)) (\lambda X2 : \iota. \lambda X3 : \\ \iota. k5_binop_2 X2 X3))) \end{aligned} \quad (5)$$

Theorem 1

$$\forall X0. (v1_xcmplx_0 X0) \Rightarrow (\forall X1. (v1_xcmplx_0 X1) \Rightarrow (k13_member_1 \\ (k1_tarski X0) (k1_tarski X1) = k1_tarski (k5_binop_2 X0 X1)))$$