t11_member_1 (TMWHPhBujUMkW-moEUobkzQiZguszv4E775A)

October 27, 2020

Let $v1\_membered : \iota \Rightarrow o$ be given. Let $v1\_xcmplx\_0 : \iota \Rightarrow o$ be given. Let $k1\_binop\_2 : \iota \Rightarrow \iota$ be given. Let $k5\_member\_1 : \iota \Rightarrow \iota$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2\_numbers : \iota$ be given. Assume the following.

$$\forall X0.(v1\_membered\ X0) \Rightarrow (k5\_member\_1\ (k5\_member\_1\ X0) = X0) \tag{1}$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0\ X0) \Rightarrow (k1\_binop\_2\ (k1\_binop\_2\ X0) = X0) \tag{2}$$

Assume the following.

$$\forall X0.(v1\_membered\ X0) \Rightarrow (v1\_membered\ (k5\_member\_1\ X0)) \tag{3}$$

Assume the following.

$$\forall X0.(v1\_membered\ X0) \Rightarrow (k5\_member\_1\ X0 = ReplSep\ (toset\ (\lambda X1 : \iota.m1\_subset\_1\ X1\ k2\_numbers))\ (\lambda X1 : \iota.X1 \in X0)\ (\lambda X1 : \iota.k1\_binop\_2\ X1)) \tag{4}$$

Assume the following.

$$\forall X0.(v1\_membered\ X0) \Leftrightarrow (\forall X1.(X1 \in X0) \Rightarrow (v1\_xcmplx\_0\ X1)) \tag{5}$$

Theorem 1

$$\forall X0.(v1\_membered\ X0) \Rightarrow (\forall X1.(v1\_xcmplx\_0\ X1) \Rightarrow ((X1 \in X0) \Leftrightarrow (k1\_binop\_2\ X1 \in k5\_member\_1\ X0)))$$