t16_ens_1 (TMW8cbww6CVz5FHHNJmNeZtRfB4apV1619p)

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Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2\_ens\_1 : \iota \Rightarrow \iota$ be given. Let $k7\_ens\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_domain\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $k3\_ens\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4\_ens\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_xtuple\_0 : \iota \Rightarrow o$ be given. Let $k1\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $v4\_funct\_1 : \iota \Rightarrow o$ be given. Let $k1\_ens\_1 : \iota \Rightarrow \iota$ be given. Let $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(\neg v1\_xboole\_0\ X0) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (k2\_ens\_1\ X0)) \Rightarrow (X1 = k4\_tarski\ (k1\_domain\_1\ X0\ X0\ (k3\_ens\_1\ X0\ X1)\ (k4\_ens\_1\ X0\ X1))\ (k2\_xtuple\_0\ X1))) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.((\neg v1\_xboole\_0\ X0) \wedge ((\neg v1\_xboole\_0\ X1) \wedge ((m1\_subset\_1\ X2\ X0) \wedge (m1\_subset\_1\ X3\ X1)))) \Rightarrow (k1\_domain\_1\ X0\ X1\ X2\ X3 = k4\_tarski\ X2\ X3) \tag{2}$$

Assume the following.

$$\forall X0.(v1\_xtuple\_0\ X0) \Rightarrow (k4\_tarski\ (k1\_xtuple\_0\ X0)\ (k2\_xtuple\_0\ X0) = X0) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.k1\_xtuple\_0\ (k4\_tarski\ X0\ X1) = X0 \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.v1\_xtuple\_0\ (k4\_tarski\ X0\ X1) \tag{5}$$

Assume the following.

$$\forall X0.(\neg v1\_xboole\_0\ X0) \Rightarrow ((v4\_funct\_1\ (k1\_ens\_1\ X0)) \wedge (\neg v1\_xboole\_0\ (k1\_ens\_1\ X0))) \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0\ X0)\wedge(\neg v1\_xboole\_0\ X1))\Rightarrow (\neg v1\_xboole\_0\ (k2\_zfmisc\_1\ X0\ X1)) \tag{7}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.((\neg v1\_xboole\_0\ X0)\wedge ((\neg v1\_xboole\_0\ X1)\wedge((m1\_subset\_1\ X2\ X0)\wedge(m1\_subset\_1\ X3\ X1))))\Rightarrow (m1\_subset\_1\ (k1\_domain\_1\ X0\ X1\ X2\ X3)\ (k2\_zfmisc\_1\ X0\ X1)) \tag{8}$$

Assume the following.

$$\forall X0.(\neg v1\_xboole\_0\ X0)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ X0)\Rightarrow (\forall X2.(m1\_subset\_1\ X2\ X0)\Rightarrow(k7\_ens\_1\ X0\ X1\ X2 = ReplSep\ (toset\ (\lambda X3 : \iota.m1\_subset\_1\ X3\ (k1\_ens\_1\ X0)))\ (\lambda X3 : \iota.k1\_domain\_1\ (k2\_zfmisc\_1\ X0\ X0)\ (k1\_ens\_1\ X0)\ (k1\_domain\_1\ X0\ X0\ X1\ X2)\ X3 \in k2\_ens\_1\ X0)\ (\lambda X3 : \iota.k1\_domain\_1\ (k2\_zfmisc\_1\ X0\ X0)\ (k1\_ens\_1\ X0)\ (k1\_domain\_1\ X0\ X0\ X1\ X2)\ X3)))) \tag{9}$$

Theorem 1

$$\forall X0.(\neg v1\_xboole\_0\ X0)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ X0)\Rightarrow (\forall X2.(m1\_subset\_1\ X2\ X0)\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (k2\_ens\_1\ X0))\Rightarrow((X3 \in k7\_ens\_1\ X0\ X1\ X2)\Rightarrow(X3 = k4\_tarski\ (k1\_domain\_1\ X0\ X0\ X1\ X2)\ (k2\_xtuple\_0\ X3))))))$$