

t16\_incsp\_1  
(TMRV87UnfT8WA3agwmNDMLfaiYEgRbnag18)

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Let  $v15\_incsp\_1 : \iota \Rightarrow o$  be given. Let  $l2\_incsp\_1 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u1\_incsp\_1 : \iota \Rightarrow \iota$  be given. Let  $v4\_incsp\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k9\_domain\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_enumset1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_enumset1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $k8\_domain\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $l1\_incsp\_1 : \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $u4\_incsp\_1 : \iota \Rightarrow \iota$  be given. Let  $r5\_incsp\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v9\_incsp\_1 : \iota \Rightarrow o$  be given. Let  $v5\_incsp\_1 : \iota \Rightarrow o$  be given. Let  $v6\_incsp\_1 : \iota \Rightarrow o$  be given. Let  $v7\_incsp\_1 : \iota \Rightarrow o$  be given. Let  $v8\_incsp\_1 : \iota \Rightarrow o$  be given. Let  $v10\_incsp\_1 : \iota \Rightarrow o$  be given. Let  $v11\_incsp\_1 : \iota \Rightarrow o$  be given. Let  $v12\_incsp\_1 : \iota \Rightarrow o$  be given. Let  $v13\_incsp\_1 : \iota \Rightarrow o$  be given. Let  $v14\_incsp\_1 : \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0.\forall X1.\forall X2.k2\_enumset1\ X0\ X0\ X1\ X2 = k1\_enumset1\ X0\ X1\ X2 \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.\forall X4.((\neg v1\_xboole\_0\ X0) \wedge ((m1\_subset\_1\ X1\ X0) \wedge ((m1\_subset\_1\ X2\ X0) \wedge ((m1\_subset\_1\ X3\ X0) \wedge (m1\_subset\_1\ X4\ X0)))))) \Rightarrow (k9\_domain\_1\ X0\ X1\ X2\ X3\ X4 = k2\_enumset1\ X1\ X2\ X3\ X4) \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.((\neg v1\_xboole\_0\ X0) \wedge ((m1\_subset\_1\ X1\ X0) \wedge ((m1\_subset\_1\ X2\ X0) \wedge (m1\_subset\_1\ X3\ X0)))) \Rightarrow (k8\_domain\_1\ X0\ X1\ X2\ X3 = k1\_enumset1\ X1\ X2\ X3) \quad (3)$$

Assume the following.

$$\forall X0.(l1\_incsp\_1\ X0) \Rightarrow (\neg v1\_xboole\_0\ (u1\_incsp\_1\ X0)) \quad (4)$$

Assume the following.

$$\forall X0.(l2\_incsp\_1\ X0) \Rightarrow (l1\_incsp\_1\ X0) \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.\forall X4.((\neg v1\_xboole\_0 \\ & X0)\wedge((m1\_subset\_1 X1 X0)\wedge((m1\_subset\_1 X2 X0)\wedge((m1\_subset\_1 \\ & X3 X0)\wedge(m1\_subset\_1 X4 X0))))))\Rightarrow(m1\_subset\_1 (k9\_domain\_1 X0 X1 \\ & X2 X3 X4) (k1\_zfmisc\_1 X0)) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0.(l2\_incsp\_1 X0)\Rightarrow(\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 \\ & (u1\_incsp\_1 X0)))\Rightarrow((v4\_incsp\_1 X1 X0)\Leftrightarrow(\exists X2.(m1\_subset\_1 \\ & X2 (u4\_incsp\_1 X0))\wedge(r5\_incsp\_1 X0 X1 X2)))) \end{aligned} \quad (7)$$

Assume the following.

$$\begin{aligned} & \forall X0.(l2\_incsp\_1 X0)\Rightarrow((v9\_incsp\_1 X0)\Leftrightarrow(\forall X1.(m1\_subset\_1 \\ & X1 (u1\_incsp\_1 X0))\Rightarrow(\forall X2.(m1\_subset\_1 X2 (u1\_incsp\_1 X0))\Rightarrow \\ & (\forall X3.(m1\_subset\_1 X3 (u1\_incsp\_1 X0))\Rightarrow(\exists X4.(m1\_subset\_1 \\ & X4 (u4\_incsp\_1 X0))\wedge(r5\_incsp\_1 X0 (k8\_domain\_1 (u1\_incsp\_1 X0) \\ & X1 X2 X3) X4)))))) \end{aligned} \quad (8)$$

Assume the following.

$$\begin{aligned} & \forall X0.(l2\_incsp\_1 X0)\Rightarrow((v15\_incsp\_1 X0)\Rightarrow((v5\_incsp\_1 X0)\wedge \\ & ((v6\_incsp\_1 X0)\wedge((v7\_incsp\_1 X0)\wedge((v8\_incsp\_1 X0)\wedge((v9\_incsp\_1 \\ & X0)\wedge((v10\_incsp\_1 X0)\wedge((v11\_incsp\_1 X0)\wedge((v12\_incsp\_1 X0)\wedge \\ & ((v13\_incsp\_1 X0)\wedge(v14\_incsp\_1 X0)))))))))) \end{aligned} \quad (9)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.((v15\_incsp\_1 X0)\wedge(l2\_incsp\_1 X0))\Rightarrow(\forall X1.( \\ & m1\_subset\_1 X1 (u1\_incsp\_1 X0))\Rightarrow(\forall X2.(m1\_subset\_1 X2 ( \\ & u1\_incsp\_1 X0))\Rightarrow(\forall X3.(m1\_subset\_1 X3 (u1\_incsp\_1 X0))\Rightarrow \\ & (v4\_incsp\_1 (k9\_domain\_1 (u1\_incsp\_1 X0) X1 X1 X2 X3) X0)))) \end{aligned}$$