t10_incsp_1 (TMLzu-jYo1QUjfiEVmMYTJbVqmWbEqfrbYk4)

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Let $l2\_incsp\_1 : \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u2\_incsp\_1 : \iota \Rightarrow \iota$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $u1\_incsp\_1 : \iota \Rightarrow \iota$ be given. Let $r4\_incsp\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $l1\_incsp\_1 : \iota \Rightarrow o$ be given. Let $r1\_incsp\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.\forall X1.\forall X2.((X0 \in X1) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X2))) \Rightarrow (m1\_subset\_1\ X0\ X2) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X0)) \wedge (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ X0))) \Rightarrow (k4\_subset\_1\ X0\ X1\ X2 = k2\_xboole\_0\ X1\ X2) \tag{2}$$

Assume the following.

$$\forall X0.(l2\_incsp\_1\ X0) \Rightarrow (l1\_incsp\_1\ X0) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X0)) \wedge (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ X0))) \Rightarrow (m1\_subset\_1\ (k4\_subset\_1\ X0\ X1\ X2)\ (k1\_zfmisc\_1\ X0)) \tag{4}$$

Assume the following.

$$\forall X0.(l1\_incsp\_1\ X0) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (u1\_incsp\_1\ X0))) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (u2\_incsp\_1\ X0)) \Rightarrow ((r4\_incsp\_1\ X0\ X1\ X2) \Leftrightarrow (\forall X3.(m1\_subset\_1\ X3\ (u1\_incsp\_1\ X0)) \Rightarrow ((X3 \in X1) \Rightarrow (r1\_incsp\_1\ X0\ X3\ X2))))))) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(X2 = k2\_xboole\_0\ X0\ X1) \Leftrightarrow (\forall X3.(X3 \in X2) \Leftrightarrow ((X3 \in X0) \vee (X3 \in X1))) \tag{6}$$

Theorem 1

$$\forall X0.(l2\_incsp\_1\ X0)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (u2\_incsp\_1\ X0))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (u1\_incsp\_1\ X0)))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (u1\_incsp\_1\ X0)))\Rightarrow((r4\_incsp\_1\ X0\ (k4\_subset\_1\ (u1\_incsp\_1\ X0)\ X2\ X3)\ X1)\Leftrightarrow((r4\_incsp\_1\ X0\ X2\ X1)\wedge(r4\_incsp\_1\ X0\ X3\ X1))))))$$