t3_t_1topsp (TMN-rGt9GrzN9AaUu1nTXX8Mywtcb5UDaFj9)

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Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $v2\_pre\_topc : \iota \Rightarrow o$ be given. Let $l1\_pre\_topc : \iota \Rightarrow o$ be given. Let $v1\_eqrel\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1\_eqrel\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $v2\_tops\_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $k9\_setfam\_1 : \iota \Rightarrow \iota$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.k9\_setfam\_1\ X0 = k1\_zfmisc\_1\ X0 \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.(\forall X2.(X2 \in X0) \Rightarrow (X2 \in X1)) \Rightarrow (m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ X1)) \tag{2}$$

Assume the following.

$$\forall X0.\neg v1\_xboole\_0\ (k1\_zfmisc\_1\ X0) \tag{3}$$

Assume the following.

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

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ (k9\_setfam\_1\ X0)))) \Rightarrow ((v1\_eqrel\_1\ X1\ X0) \Leftrightarrow (\forall X2.(X2 \in X1) \Rightarrow (m1\_eqrel\_1\ X2\ X0))) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0\ X0) \Rightarrow ((m1\_subset\_1\ X1\ X0) \Leftrightarrow (X1 \in X0))) \wedge ((v1\_xboole\_0\ X0) \Rightarrow ((m1\_subset\_1\ X1\ X0) \Leftrightarrow (v1\_xboole\_0\ X1))) \tag{6}$$

Theorem 1

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v2\_pre\_topc\ X0)\wedge(l1\_pre\_topc\ X0)))\Rightarrow((v1\_eqrel\_1\ (ReplSep\ (toset\ (\lambda X1 : \iota.m1\_eqrel\_1\ X1\ (u1\_struct\_0\ X0)))\ (\lambda X1 : \iota.v2\_tops\_2\ X1\ X0)\ (\lambda X1 : \iota.\ X1))\ (u1\_struct\_0\ X0))\wedge(m1\_subset\_1\ (ReplSep\ (toset\ (\lambda X1 : \iota.m1\_eqrel\_1\ X1\ (u1\_struct\_0\ X0)))\ (\lambda X1 : \iota.v2\_tops\_2\ X1\ X0)\ (\lambda X1 : \iota.X1))\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ (k9\_setfam\_1\ (u1\_struct\_0\ X0))))))$$