

t2\_tops\_3  
(TMSxBtrhHt8pUEL42BHrNrAsDA19pGc3hMo)

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Let  $l1\_pre\_topc : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k2\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k3\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $k4\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $l1\_struct\_0 : \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0. k4\_xboole\_0 X0 k1\_xboole\_0 = X0 \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (m1\_subset\_1 X1 (k1\_zfmisc\_1 X0)) \Rightarrow (k3\_subset\_1 X0 (k3\_subset\_1 X0 X1) = X1) \quad (2)$$

Assume the following.

$$\forall X0. (l1\_pre\_topc X0) \Rightarrow (l1\_struct\_0 X0) \quad (3)$$

Assume the following.

$$\forall X0. (l1\_struct\_0 X0) \Rightarrow (m1\_subset\_1 (k1\_struct\_0 X0) (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. (m1\_subset\_1 X1 (k1\_zfmisc\_1 X0)) \Rightarrow (k3\_subset\_1 X0 X1 = k4\_xboole\_0 X0 X1) \quad (5)$$

Assume the following.

$$\forall X0. (l1\_struct\_0 X0) \Rightarrow (k2\_struct\_0 X0 = u1\_struct\_0 X0) \quad (6)$$

Assume the following.

$$\forall X0. (l1\_struct\_0 X0) \Rightarrow (k1\_struct\_0 X0 = k1\_xboole\_0) \quad (7)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.(l1\_pre\_topc\ X0) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1 \\ & (u1\_struct\_0\ X0))) \Rightarrow (((X1 = k2\_struct\_0\ X0) \Rightarrow (k3\_subset\_1\ (u1\_struct\_0 \\ & X0)\ X1 = k1\_struct\_0\ X0)) \wedge (((k3\_subset\_1\ (u1\_struct\_0\ X0)\ X1 = k1\_struct\_0 \\ & X0) \Rightarrow (X1 = k2\_struct\_0\ X0)) \wedge ((X1 = u1\_struct\_0\ X0) \Rightarrow (k3\_subset\_1 \\ & (u1\_struct\_0\ X0)\ X1 = k1\_xboole\_0)) \wedge ((k3\_subset\_1\ (u1\_struct\_0 \\ & X0)\ X1 = k1\_xboole\_0) \Rightarrow (X1 = u1\_struct\_0\ X0)))))) \end{aligned}$$