

t25\_tops\_2 (TMGUjS-  
FYKLHW73dm74LAgYXUidiUxWPYfgM)

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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  $m1\_pre\_topc : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v3\_pre\_topc : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k3\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k9\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $l1\_struct\_0 : \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0. \forall X1. (m1\_subset\_1 X0 (k1\_zfmisc\_1 X1)) \Leftrightarrow (r1\_tarski X0 X1) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (r1\_tarski X0 X1) \Rightarrow (k3\_xboole\_0 X0 X1 = X0) \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0. (l1\_pre\_topc X0) \Rightarrow (\forall X1. (m1\_pre\_topc X1 X0) \Rightarrow \\ (\forall X2. (m1\_subset\_1 X2 (k1\_zfmisc\_1 (u1\_struct\_0 X1))) \Rightarrow \\ ((v3\_pre\_topc X2 X1) \Leftrightarrow (\exists X3. (m1\_subset\_1 X3 (k1\_zfmisc\_1 \\ (u1\_struct\_0 X0))) \wedge ((v3\_pre\_topc X3 X0) \wedge (k9\_subset\_1 (u1\_struct\_0 \\ X1) X3 (k2\_struct\_0 X1) = X2)))))) \quad (3) \end{aligned}$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (m1\_subset\_1 X2 (k1\_zfmisc\_1 X0)) \Rightarrow (k9\_subset\_1 X0 X1 X2 = k3\_xboole\_0 X1 X2) \quad (4)$$

Assume the following.

$$\forall X0. (l1\_pre\_topc X0) \Rightarrow (\forall X1. (m1\_pre\_topc X1 X0) \Rightarrow (l1\_pre\_topc X1)) \quad (5)$$

Assume the following.

$$\forall X0. (l1\_pre\_topc X0) \Rightarrow (l1\_struct\_0 X0) \quad (6)$$

Assume the following.

$$\forall X0.(l1\_struct\_0 X0) \Rightarrow (m1\_subset\_1 (k2\_struct\_0 X0) (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \quad (7)$$

Assume the following.

$$\forall X0.(l1\_struct\_0 X0) \Rightarrow (k2\_struct\_0 X0 = u1\_struct\_0 X0) \quad (8)$$

**Theorem 1**

$$\begin{aligned} \forall X0.(l1\_pre\_topc X0) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 \\ (u1\_struct\_0 X0))) \Rightarrow (\forall X2.(m1\_pre\_topc X2 X0) \Rightarrow ((v3\_pre\_topc \\ X1 X0) \Rightarrow (\forall X3.(m1\_subset\_1 X3 (k1\_zfmisc\_1 (u1\_struct\_0 \\ X2))) \Rightarrow ((X3 = X1) \Rightarrow (v3\_pre\_topc X3 X2)))))) \end{aligned}$$