

t4\_tops\_2  
(TMZ4hLKrRM3Hvvc8R6VZs7Tcpo2QAN3jiR2)

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Let  $l1\_struct.0 : \iota \Rightarrow o$  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  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k7\_subset.1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k5\_setfam.1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_xboole.0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_tarski : \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. (m1\_subset.1 X1 (k1\_zfmisc.1 X0)) \Rightarrow (k7\_subset.1 X0 X1 X2 = k4\_xboole.0 X1 X2) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (m1\_subset.1 X1 (k1\_zfmisc.1 (k1\_zfmisc.1 X0))) \Rightarrow (k5\_setfam.1 X0 X1 = k3\_tarski X1) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (m1\_subset.1 X1 (k1\_zfmisc.1 X0)) \Rightarrow (m1\_subset.1 (k7\_subset.1 X0 X1 X2) (k1\_zfmisc.1 X0)) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. (m1\_subset.1 X1 (k1\_zfmisc.1 (k1\_zfmisc.1 X0))) \Rightarrow (m1\_subset.1 (k5\_setfam.1 X0 X1) (k1\_zfmisc.1 X0)) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (X2 = k4\_xboole.0 X0 X1) \Leftrightarrow (\forall X3. (X3 \in X2) \Leftrightarrow ((X3 \in X0) \wedge (\neg X3 \in X1))) \quad (5)$$

Assume the following.

$$\forall X0. \forall X1. (X1 = k3\_tarski X0) \Leftrightarrow (\forall X2. (X2 \in X1) \Leftrightarrow (\exists X3. (X2 \in X3) \wedge (X3 \in X0))) \quad (6)$$

Assume the following.

$$\forall X0. \forall X1. (r1\_tarski X0 X1) \Leftrightarrow (\forall X2. (X2 \in X0) \Rightarrow (X2 \in X1)) \quad (7)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.(l1\_struct\_0 X0) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 \\ & \quad (k1\_zfmisc\_1 (u1\_struct\_0 X0)))) \Rightarrow (\forall X2.(m1\_subset\_1 X2 \\ & (k1\_zfmisc\_1 (k1\_zfmisc\_1 (u1\_struct\_0 X0)))) \Rightarrow (r1\_tarSKI (k7\_subset\_1 \\ & (u1\_struct\_0 X0) (k5\_setfam\_1 (u1\_struct\_0 X0) X1) (k5\_setfam\_1 \\ & (u1\_struct\_0 X0) X2)) (k5\_setfam\_1 (u1\_struct\_0 X0) (k7\_subset\_1 \\ & \quad (k1\_zfmisc\_1 (u1\_struct\_0 X0) X1 X2)))))) \end{aligned}$$