

## t24\_tops\_1

(TMN8QP65u2kjXCMGGBGkqbhUyBQ9UjTFv8X)

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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  $v3\_pre\_topc : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_tops\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v2\_pre\_topc : \iota \Rightarrow o$  be given. Let  $k9\_setfam\_1 : \iota \Rightarrow \iota$  be given. Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v1\_pre\_topc : \iota \Rightarrow o$  be given. Let  $k10\_subset\_1 : \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0.((v2\_pre\_topc X0) \wedge (l1\_pre\_topc X0)) \Rightarrow (\forall X1. \\ & (l1\_pre\_topc X1) \Rightarrow (\forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 (u1\_struct\_0 \\ & X0))) \Rightarrow (\forall X3.(m1\_subset\_1 X3 (k1\_zfmisc\_1 (u1\_struct\_0 \\ & X1))) \Rightarrow (((v3\_pre\_topc X3 X1) \Rightarrow (k1\_tops\_1 X1 X3 = X3)) \wedge ((k1\_tops\_1 \\ & X0 X2 = X2) \Rightarrow (v3\_pre\_topc X2 X0)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.(l1\_pre\_topc X0) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 \\ & (u1\_struct\_0 X0))) \Rightarrow (\forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 \\ & (u1\_struct\_0 X0))) \Rightarrow ((r1\_tarski X1 X2) \Rightarrow (r1\_tarski (k1\_tops\_1 \\ & X0 X1) (k1\_tops\_1 X0 X2)))))) \end{aligned} \tag{2}$$

Assume the following.

$$\forall X0.k9\_setfam\_1 X0 = k1\_zfmisc\_1 X0 \tag{3}$$

Assume the following.

$$\exists X0.(l1\_pre\_topc X0) \wedge ((\neg v2\_struct\_0 X0) \wedge ((v1\_pre\_topc X0) \wedge (v2\_pre\_topc X0))) \tag{4}$$

Assume the following.

$$\forall X0.m1\_subset\_1 (k10\_subset\_1 X0) X0 \tag{5}$$

### Theorem 1

$$\begin{aligned} & \forall X0.(l1\_pre\_topc X0) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 \\ & (u1\_struct\_0 X0))) \Rightarrow (\forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 \\ & (u1\_struct\_0 X0))) \Rightarrow (((v3\_pre\_topc X1 X0) \wedge (r1\_tarski X1 X2)) \Rightarrow \\ & (r1\_tarski X1 (k1\_tops\_1 X0 X2)))))) \end{aligned}$$