

## t4\_tdlat\_1

(TMKw5S7PYBFhyP9Gb5z2UZB18c1TAJmcVvT)

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Let  $v2\_pre\_topc : \iota \Rightarrow o$  be given. 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  $r1\_tarSKI : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_tops\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_pre\_topc : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v3\_pre\_topc : \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} \forall X0.(l1\_pre\_topc X0) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 \\ (u1\_struct\_0 X0))) \Rightarrow (\forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 \\ (u1\_struct\_0 X0))) \Rightarrow (((v3\_pre\_topc X1 X0) \wedge (r1\_tarSKI X1 X2)) \Rightarrow \\ (r1\_tarSKI X1 (k1\_tops\_1 X0 X2)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0.(l1\_pre\_topc X0) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 \\ (u1\_struct\_0 X0))) \Rightarrow (r1\_tarSKI X1 (k2\_pre\_topc X0 X1))) \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.(((v2\_pre\_topc X0) \wedge (l1\_pre\_topc X0)) \wedge \\ (m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0)))) \Rightarrow (v3\_pre\_topc \\ (k1\_tops\_1 X0 X1) X0) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.(((l1\_pre\_topc X0) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 \\ (u1\_struct\_0 X0)))) \Rightarrow (m1\_subset\_1 (k2\_pre\_topc X0 X1) (k1\_zfmisc\_1 \\ (u1\_struct\_0 X0)))) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.(((l1\_pre\_topc X0) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 \\ (u1\_struct\_0 X0)))) \Rightarrow (m1\_subset\_1 (k1\_tops\_1 X0 X1) (k1\_zfmisc\_1 \\ (u1\_struct\_0 X0)))) \quad (5)$$

### Theorem 1

$$\forall X0.((v2\_pre\_topc X0) \wedge (l1\_pre\_topc X0)) \Rightarrow (\forall X1. \\ (m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow (r1\_tarSKI ( \\ k1\_tops\_1 X0 X1) (k1\_tops\_1 X0 (k2\_pre\_topc X0 (k1\_tops\_1 X0 X1))))))$$