

## t6\_tdlat\_3

(TMWXg4CeEHDGUtXeyt722An39SfgNAYbp5r)

October 27, 2020

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  $v3\_pre\_topc : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v4\_pre\_topc : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_tops\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_pre\_topc : \iota \Rightarrow \iota \Rightarrow \iota$  be given. 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.

$$\begin{aligned} & \forall X0.(l1\_pre\_topc X0) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 \\ & (u1\_struct\_0 X0))) \Rightarrow (((v4\_pre\_topc X1 X0) \Rightarrow (k2\_pre\_topc X0 X1 = \\ & X1)) \wedge (((v2\_pre\_topc X0) \wedge (k2\_pre\_topc X0 X1 = X1)) \Rightarrow (v4\_pre\_topc \\ & X1 X0)))) \end{aligned} \tag{2}$$

### Theorem 1

$$\begin{aligned} & \forall X0.((v2\_pre\_topc X0) \wedge (l1\_pre\_topc X0)) \Rightarrow (\forall X1. \\ & (m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow (((v3\_pre\_topc \\ & X1 X0) \wedge (v4\_pre\_topc X1 X0)) \Rightarrow (k1\_tops\_1 X0 (k2\_pre\_topc X0 X1) = \\ & k2\_pre\_topc X0 (k1\_tops\_1 X0 X1)))) \end{aligned}$$