

t9\_t\_0topsp (TMK-  
cARr9z4tFpGwpYQR96njzdXU5oVQEt88)

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Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v2\_pre\_topc : \iota \Rightarrow o$  be given. Let  $l1\_pre\_topc : \iota \Rightarrow o$  be given. Let  $k3\_t\_0topsp : \iota \Rightarrow \iota$  be given. Let  $v6\_pre\_topc : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $v3\_pre\_topc : \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v2\_pre\_topc X0) \wedge (l1\_pre\_topc \\ & X0))) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 (k3\_t\_0topsp \\ & X0))) \Rightarrow (\forall X2.(m1\_subset\_1 X2 (u1\_struct\_0 (k3\_t\_0topsp \\ & X0))) \Rightarrow (\neg (X1 \neq X2) \wedge (\forall X3.(m1\_subset\_1 X3 (k1\_zfmisc\_1 (u1\_struct\_0 \\ & (k3\_t\_0topsp X0)))) \Rightarrow (\neg (v3\_pre\_topc X3 (k3\_t\_0topsp X0)) \wedge ((( \\ & X1 \in X3) \wedge (\neg X2 \in X3)) \vee ((X2 \in X3) \wedge (\neg X1 \in X3)))))))))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0 X0) \wedge ((v2\_pre\_topc X0) \wedge (l1\_pre\_topc X0))) \Rightarrow ((\neg v2\_struct\_0 (k3\_t\_0topsp X0)) \wedge (v2\_pre\_topc (k3\_t\_0topsp X0))) \quad (2)$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0 X0) \wedge ((v2\_pre\_topc X0) \wedge (l1\_pre\_topc X0))) \Rightarrow ((v2\_pre\_topc (k3\_t\_0topsp X0)) \wedge (l1\_pre\_topc (k3\_t\_0topsp X0))) \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0.(l1\_pre\_topc X0) \Rightarrow ((v6\_pre\_topc X0) \Leftrightarrow ((v2\_struct\_0 \\ & X0) \vee (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 X0)) \Rightarrow (\forall X2. \\ & (m1\_subset\_1 X2 (u1\_struct\_0 X0)) \Rightarrow (\neg (X1 \neq X2) \wedge (\forall X3.(m1\_subset\_1 \\ & X3 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow (\neg (v3\_pre\_topc X3 X0) \wedge ((( \\ & X1 \in X3) \wedge (\neg X2 \in X3)) \vee ((X2 \in X3) \wedge (\neg X1 \in X3)))))))))) \end{aligned} \quad (4)$$

**Theorem 1**

$$\forall X0.((\neg v2\_struct\_0 X0) \wedge ((v2\_pre\_topc X0) \wedge (l1\_pre\_topc X0))) \Rightarrow ((\neg v2\_struct\_0 (k3\_t\_0topsp X0)) \wedge ((v2\_pre\_topc (k3\_t\_0topsp X0)) \wedge ((v6\_pre\_topc (k3\_t\_0topsp X0)) \wedge (l1\_pre\_topc (k3\_t\_0topsp X0)))))$$