

t104\_tmap\_1  
 (TMXkt3ejfNsxCbkHRxNyvQyVw2sPuJyEszH)

October 27, 2020

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  $m1\_pre\_topc : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_tsep\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $g1\_pre\_topc : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $u1\_pre\_topc : \iota \Rightarrow \iota$  be given. Let  $k8\_tmap\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $v3\_pre\_topc : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k6\_tmap\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_pre\_topc : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} \forall X0. ((\neg v2\_struct\_0 X0) \wedge ((v2\_pre\_topc X0) \wedge (l1\_pre\_topc \\ X0))) \Rightarrow (\forall X1. (m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 \\ X0))) \Rightarrow ((v3\_pre\_topc X1 X0) \Leftrightarrow (g1\_pre\_topc (u1\_struct\_0 X0) (u1\_pre\_topc \\ X0) = k6\_tmap\_1 X0 X1))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0. (l1\_pre\_topc X0) \Rightarrow (\forall X1. (m1\_pre\_topc X1 X0) \Rightarrow \\ (m1\_subset\_1 (u1\_struct\_0 X1) (k1\_zfmisc\_1 (u1\_struct\_0 X0)))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. (((\neg v2\_struct\_0 X0) \wedge ((v2\_pre\_topc X0) \wedge \\ (l1\_pre\_topc X0))) \wedge (m1\_pre\_topc X1 X0)) \Rightarrow ((v1\_pre\_topc (k8\_tmap\_1 \\ X0 X1)) \wedge ((v2\_pre\_topc (k8\_tmap\_1 X0 X1)) \wedge (l1\_pre\_topc (k8\_tmap\_1 \\ X0 X1)))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0. (l1\_pre\_topc X0) \Rightarrow (\forall X1. (m1\_pre\_topc X1 X0) \Rightarrow \\ ((v1\_tsep\_1 X1 X0) \Leftrightarrow (\forall X2. (m1\_subset\_1 X2 (k1\_zfmisc\_1 ( \\ u1\_struct\_0 X0)))) \Rightarrow ((X2 = u1\_struct\_0 X1) \Rightarrow (v3\_pre\_topc X2 X0)))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v2\_pre\_topc X0) \wedge (l1\_pre\_topc \\
& X0))) \Rightarrow (\forall X1.(m1\_pre\_topc X1 X0) \Rightarrow (\forall X2.((v1\_pre\_topc \\
& X2) \wedge ((v2\_pre\_topc X2) \wedge (l1\_pre\_topc X2))) \Rightarrow ((X2 = k8\_tmap\_1 X0 \\
& X1) \Leftrightarrow (\forall X3.(m1\_subset\_1 X3 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow \\
& ((X3 = u1\_struct\_0 X1) \Rightarrow (X2 = k6\_tmap\_1 X0 X3)))))) \quad (5)
\end{aligned}$$

**Theorem 1**

$$\begin{aligned}
& \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v2\_pre\_topc X0) \wedge (l1\_pre\_topc \\
& X0))) \Rightarrow (\forall X1.((\neg v2\_struct\_0 X1) \wedge (m1\_pre\_topc X1 X0)) \Rightarrow ( \\
& ((v1\_tsep\_1 X1 X0) \wedge (m1\_pre\_topc X1 X0)) \Leftrightarrow (g1\_pre\_topc (u1\_struct\_0 \\
& X0) (u1\_pre\_topc X0) = k8\_tmap\_1 X0 X1)))
\end{aligned}$$