

t70\_tex\_4

(TMbhV4nwsVBKZsFcKm3n2URYbftT3LPMR13)

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  $v2\_tdlat\_3 : \iota \Rightarrow o$  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  $r1\_tsep\_1 : \iota \Rightarrow \iota \Rightarrow o$  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  $v1\_tex\_4 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v3\_pre\_topc : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $l1\_struct\_0 : \iota \Rightarrow o$  be given. Let  $r1\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2\_struct\_0 X0) \wedge (l1\_pre\_topc X0)) \Rightarrow (\forall X1. \\ & (m1\_pre\_topc X1 X0) \Rightarrow (\forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 \\ & (u1\_struct\_0 X0))) \Rightarrow (((X2 = u1\_struct\_0 X1) \wedge (v2\_tdlat\_3 X1)) \Rightarrow \\ & (v1\_tex\_4 X2 X0)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v2\_pre\_topc X0) \wedge (l1\_pre\_topc X0)) \Rightarrow (\forall X1. \\ & (m1\_pre\_topc X1 X0) \Rightarrow (\forall X2.(m1\_pre\_topc X2 X0) \Rightarrow ((r1\_tarski \\ & (u1\_struct\_0 X1) (u1\_struct\_0 X2)) \Leftrightarrow (m1\_pre\_topc X1 X2)))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0.(l1\_pre\_topc X0) \Rightarrow (\forall X1.(m1\_pre\_topc X1 X0) \Rightarrow \\ & (m1\_subset\_1 (u1\_struct\_0 X1) (k1\_zfmisc\_1 (u1\_struct\_0 X0)))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v2\_pre\_topc X0) \wedge (l1\_pre\_topc X0)) \Rightarrow (\forall X1. \\ & (m1\_pre\_topc X1 X0) \Rightarrow (\forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 \\ & (u1\_struct\_0 X0))) \Rightarrow ((X2 = u1\_struct\_0 X1) \Rightarrow (((v1\_tsep\_1 X1 X0) \wedge \\ & (m1\_pre\_topc X1 X0)) \Leftrightarrow (v3\_pre\_topc X2 X0)))))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0.(l1\_pre\_topc X0) \Rightarrow (\forall X1.(m1\_pre\_topc X1 X0) \Rightarrow \\ & (l1\_pre\_topc X1)) \end{aligned} \quad (5)$$

Assume the following.

$$\forall X0.(l1\_pre\_topc\ X0)\Rightarrow(l1\_struct\_0\ X0) \quad (6)$$

Assume the following.

$$\forall X0.(l1\_struct\_0\ X0)\Rightarrow(\forall X1.(l1\_struct\_0\ X1)\Rightarrow((r1\_tsep\_1\ X0\ X1)\Leftrightarrow(r1\_xboole\_0\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X1)))) \quad (7)$$

Assume the following.

$$\begin{aligned} \forall X0.(l1\_pre\_topc\ X0)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1 \\ (u1\_struct\_0\ X0)))\Rightarrow((v1\_tex\_4\ X1\ X0)\Leftrightarrow(\forall X2.(m1\_subset\_1 \\ X2\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))\Rightarrow(\neg(v3\_pre\_topc\ X2\ X0)\wedge(\neg \\ r1\_xboole\_0\ X1\ X2)\wedge(\neg r1\_tarSKI\ X1\ X2)))))) \end{aligned} \quad (8)$$

**Theorem 1**

$$\begin{aligned} \forall X0.((\neg v2\_struct\_0\ X0)\wedge((v2\_pre\_topc\ X0)\wedge(l1\_pre\_topc \\ X0)))\Rightarrow(\forall X1.((v2\_tdlat\_3\ X1)\wedge(m1\_pre\_topc\ X1\ X0))\Rightarrow(\forall X2. \\ ((v1\_tsep\_1\ X2\ X0)\wedge(m1\_pre\_topc\ X2\ X0))\Rightarrow((r1\_tsep\_1\ X1\ X2)\vee(m1\_pre\_topc \\ X1\ X2)))) \end{aligned}$$