

## t61\_tex\_2

(TMTewiTsmTLAJL7Hz7z4KeuSvy4BJjBhtQn)

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Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v2\_pre\_topc : \iota \Rightarrow o$  be given. Let  $v3\_tdlat\_3 : \iota \Rightarrow o$  be given. Let  $l1\_pre\_topc : \iota \Rightarrow o$  be given. Let  $v1\_tdlat\_3 : \iota \Rightarrow o$  be given. Let  $m1\_pre\_topc : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_pre\_topc : \iota \Rightarrow o$  be given. Let  $v4\_tex\_2 : \iota \Rightarrow \iota \Rightarrow o$  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  $v2\_tex\_2 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v3\_tex\_2 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v2\_pre\_topc X0) \wedge (v3\_tdlat\_3 \\ X0) \wedge (l1\_pre\_topc X0))) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 \\ (u1\_struct\_0 X0))) \Rightarrow (\neg (v2\_tex\_2 X1 X0) \wedge (\forall X2.(m1\_subset\_1 \\ X2 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow (\neg (r1\_tarski X1 X2) \wedge (v3\_tex\_2 \\ X2 X0)))))) \end{aligned} \tag{1}$$

Assume the following.

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

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v2\_pre\_topc X0) \wedge (l1\_pre\_topc \\ X0))) \Rightarrow (\forall X1.((\neg v1\_xboole\_0 X1) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 \\ (u1\_struct\_0 X0)))) \Rightarrow (\neg (v3\_tex\_2 X1 X0) \wedge (\forall X2.((\neg v2\_struct\_0 \\ X2) \wedge ((v1\_pre\_topc X2) \wedge (m1\_pre\_topc X2 X0))) \Rightarrow (\neg (v4\_tex\_2 X2 X0) \wedge \\ (X1 = u1\_struct\_0 X2)))))) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v2\_pre\_topc X0) \wedge (l1\_pre\_topc \\ X0))) \Rightarrow (\forall X1.((v1\_xboole\_0 X1) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 \\ (u1\_struct\_0 X0)))) \Rightarrow (\neg v3\_tex\_2 X1 X0)) \end{aligned} \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1 X0 (k1\_zfmisc\_1 X1))\Leftrightarrow(r1\_tarski X0 X1) \quad (5)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2\_struct\_0 X0)\wedge(l1\_pre\_topc X0))\Rightarrow(\forall X1. \\ ((\neg v2\_struct\_0 X1)\wedge(m1\_pre\_topc X1 X0))\Rightarrow(\forall X2.(m1\_subset\_1 \\ X2 (k1\_zfmisc\_1 (u1\_struct\_0 X0)))\Rightarrow((X2 = u1\_struct\_0 X1)\Rightarrow((v2\_tex\_2 \\ X2 X0)\Leftrightarrow(v1\_tdlat\_3 X1)))))) \end{aligned} \quad (6)$$

Assume the following.

$$\forall X0.(l1\_pre\_topc X0)\Rightarrow(\forall X1.(m1\_pre\_topc X1 X0)\Rightarrow(m1\_subset\_1 (u1\_struct\_0 X1) (k1\_zfmisc\_1 (u1\_struct\_0 X0)))) \quad (7)$$

**Theorem 1**

$$\begin{aligned} \forall X0.((\neg v2\_struct\_0 X0)\wedge((v2\_pre\_topc X0)\wedge((v3\_tdlat\_3 \\ X0)\wedge(l1\_pre\_topc X0))))\Rightarrow(\forall X1.((\neg v2\_struct\_0 X1)\wedge((v1\_tdlat\_3 \\ X1)\wedge(m1\_pre\_topc X1 X0)))\Rightarrow(\exists X2.((\neg v2\_struct\_0 X2)\wedge(( \\ v1\_pre\_topc X2)\wedge(m1\_pre\_topc X2 X0)))\wedge((m1\_pre\_topc X1 X2)\wedge( \\ v4\_tex\_2 X2 X0)))) \end{aligned}$$