

## t12\_tex\_3

(TMGU1qX4HzPFxGbKe6ev2FsGXkz9GYPZhMm)

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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  $v1\_tex\_3 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m1\_pre\_topc : \iota \Rightarrow \iota \Rightarrow o$  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  $v1\_tops\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} \forall X0.(l1\_pre\_topc\ X0) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1 \\ (u1\_struct\_0\ X0))) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1 \\ (u1\_struct\_0\ X0))) \Rightarrow (((v1\_tops\_1\ X1\ X0) \wedge (r1\_tarski\ X1\ X2)) \Rightarrow (v1\_tops\_1 \\ X2\ X0)))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ X1)) \Leftrightarrow (r1\_tarski\ X0\ X1) \tag{2}$$

Assume the following.

$$\forall X0.(l1\_pre\_topc\ X0) \Rightarrow (\forall X1.(m1\_pre\_topc\ X1\ X0) \Rightarrow (r1\_tarski\ (u1\_struct\_0\ X1)\ (u1\_struct\_0\ X0))) \tag{3}$$

Assume the following.

$$\forall X0.(l1\_pre\_topc\ X0) \Rightarrow (\forall X1.(m1\_pre\_topc\ X1\ X0) \Rightarrow (l1\_pre\_topc\ X1)) \tag{4}$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2\_struct\_0\ X0) \wedge ((v2\_pre\_topc\ X0) \wedge (l1\_pre\_topc \\ X0))) \Rightarrow (\forall X1.(m1\_pre\_topc\ X1\ X0) \Rightarrow ((v1\_tex\_3\ X1\ X0) \Leftrightarrow (\forall X2. \\ (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))) \Rightarrow ((X2 = u1\_struct\_0 \\ X1) \Rightarrow (v1\_tops\_1\ X2\ X0)))))) \end{aligned} \tag{5}$$

### Theorem 1

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