

t34\_tex\_1 (TM-  
NPnZ8triMxSu7yAaooZdMzqAV1VhJbA6N)

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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  $v3\_tdlat\_3 : \iota \Rightarrow o$  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  $v3\_pre\_topc : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_tops\_3 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v2\_pre\_topc X0) \wedge (l1\_pre\_topc \\ & X0))) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 \\ & X0))) \Rightarrow ((v1\_tops\_3 X1 X0) \Leftrightarrow (\exists X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 \\ & (u1\_struct\_0 X0))) \wedge ((r1\_tarski X2 X1) \wedge ((v3\_pre\_topc X2 X0) \wedge ( \\ & v1\_tops\_1 X2 X0)))))) \end{aligned} \quad (1)$$

Assume the following.

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

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v2\_pre\_topc X0) \wedge (l1\_pre\_topc \\ & X0))) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 \\ & X0))) \Rightarrow (((v3\_pre\_topc X1 X0) \wedge (v1\_tops\_1 X1 X0)) \Rightarrow (v1\_tops\_3 X1 \\ & X0))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v2\_pre\_topc X0) \wedge (l1\_pre\_topc \\ & X0))) \Rightarrow ((v3\_tdlat\_3 X0) \Leftrightarrow (\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 \\ & (u1\_struct\_0 X0))) \Rightarrow (\neg (X1 \neq u1\_struct\_0 X0) \wedge (v1\_tops\_3 X1 X0)))) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0. \forall X1.(X0 = X1) \Leftrightarrow ((r1\_tarski X0 X1) \wedge (r1\_tarski X1 X0)) \quad (5)$$

**Theorem 1**

$$\begin{aligned} \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v2\_pre\_topc X0) \wedge (l1\_pre\_topc \\ X0))) \Rightarrow ((\neg(\neg v3\_tdlat\_3 X0) \wedge (\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 \\ (u1\_struct\_0 X0))) \Rightarrow (\neg(X1 \neq u1\_struct\_0 X0) \wedge ((v1\_tops\_1 X1 X0) \wedge \\ (v3\_pre\_topc X1 X0)))))) \wedge (\neg(\exists X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 \\ (u1\_struct\_0 X0))) \wedge ((X1 \neq u1\_struct\_0 X0) \wedge ((v1\_tops\_1 X1 X0) \wedge \\ (v3\_pre\_topc X1 X0)))))) \wedge (v3\_tdlat\_3 X0))) \end{aligned}$$