

t65\_topgen\_4  
(TMUjfgD2ppZVUSysp3AZVrLR1x7aFxC3VeL)

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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  $v1\_tops\_2 : \iota \Rightarrow \iota \Rightarrow o$  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  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k5\_topgen\_4 : \iota \Rightarrow \iota$  be given. Let  $v1\_prob\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_topgen\_4 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v3\_topgen\_4 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v3\_pre\_topc : \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. ((X0 \in X1) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 X2))) \Rightarrow (m1\_subset\_1 X0 X2) \quad (1)$$

Assume the following.

$$\forall X0. ((\neg v2\_struct\_0 X0) \wedge ((v2\_pre\_topc X0) \wedge (l1\_pre\_topc X0))) \Rightarrow ((v1\_prob\_1 (k5\_topgen\_4 X0) (u1\_struct\_0 X0)) \wedge ((v1\_topgen\_4 (k5\_topgen\_4 X0) X0) \wedge ((v3\_topgen\_4 (k5\_topgen\_4 X0) (u1\_struct\_0 X0)) \wedge (m1\_subset\_1 (k5\_topgen\_4 X0) (k1\_zfmisc\_1 (k1\_zfmisc\_1 (u1\_struct\_0 X0))))))) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (r1\_tarski X0 X1) \Leftrightarrow (\forall X2. (X2 \in X0) \Rightarrow (X2 \in X1)) \quad (3)$$

Assume the following.

$$\forall X0. ((\neg v2\_struct\_0 X0) \wedge ((v2\_pre\_topc X0) \wedge (l1\_pre\_topc X0))) \Rightarrow (\forall X1. (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k1\_zfmisc\_1 (u1\_struct\_0 X0)))) \Rightarrow ((v1\_topgen\_4 X1 X0) \Leftrightarrow (\forall X2. (m1\_subset\_1 X2 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow ((v3\_pre\_topc X2 X0) \Rightarrow (X2 \in X1)))))) \quad (4)$$

Assume the following.

$$\begin{aligned}
& \forall X0.(l1\_pre\_topc\ X0) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1 \\
& \quad (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))) \Rightarrow ((v1\_tops\_2\ X1\ X0) \Leftrightarrow (\forall X2. \\
& (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))) \Rightarrow ((X2 \in X1) \Rightarrow (v3\_pre\_topc \\
& \quad X2\ X0))))))
\end{aligned}
\tag{5}$$

**Theorem 1**

$$\begin{aligned}
& \forall X0.((\neg v2\_struct\_0\ X0) \wedge ((v2\_pre\_topc\ X0) \wedge (l1\_pre\_topc \\
& X0))) \Rightarrow (\forall X1.((v1\_tops\_2\ X1\ X0) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1 \\
& \quad (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))) \Rightarrow (r1\_tarski\ X1\ (k5\_topgen\_4 \\
& \quad X0)))
\end{aligned}$$