

t40\_topgen\_5  
(TMWHmAhNzpbhFVYw3cwSCfyeTeejB9Vpvuk)

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Let  $v3\_tops\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_topgen\_5 : \iota$  be given. Let  $k3\_topgen\_5 : \iota$  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  $k2\_pre\_topc : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_tops\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $v4\_pre\_topc : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v1\_pre\_topc : \iota \Rightarrow o$  be given. Let  $v2\_pre\_topc : \iota \Rightarrow o$  be given. Let  $l1\_pre\_topc : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0.(m1\_subset\_1 X0 (k1\_zfmisc\_1 (u1\_struct\_0 k3\_topgen\_5))) \Rightarrow \\ & ((X0 = k1\_topgen\_5) \Rightarrow ((k2\_pre\_topc k3\_topgen\_5 X0 = X0) \wedge (k1\_tops\_1 \\ & \quad k3\_topgen\_5 X0 = k1\_xboole\_0))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & (v4\_pre\_topc k1\_topgen\_5 k3\_topgen\_5) \wedge (m1\_subset\_1 k1\_topgen\_5 \\ & \quad (k1\_zfmisc\_1 (u1\_struct\_0 k3\_topgen\_5))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & (\neg v2\_struct\_0 k3\_topgen\_5) \wedge ((v1\_pre\_topc k3\_topgen\_5) \wedge ((v2\_pre\_topc \\ & \quad k3\_topgen\_5) \wedge (l1\_pre\_topc k3\_topgen\_5))) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0.(l1\_pre\_topc X0) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 \\ & \quad (u1\_struct\_0 X0))) \Rightarrow ((v3\_tops\_1 X1 X0) \Leftrightarrow (k1\_tops\_1 X0 (k2\_pre\_topc \\ & \quad X0 X1) = k1\_xboole\_0))) \end{aligned} \tag{4}$$

**Theorem 1**

$$\begin{aligned} & (v3\_tops\_1 k1\_topgen\_5 k3\_topgen\_5) \wedge (m1\_subset\_1 k1\_topgen\_5 \\ & \quad (k1\_zfmisc\_1 (u1\_struct\_0 k3\_topgen\_5))) \end{aligned}$$