

## t38\_topgen\_5

(TMRqNhui3VJVwDsKr7bASu1UvqCVg2wj26f)

October 27, 2020

Let  $v1\_tops\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k7\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k15\_euclid : \iota \Rightarrow \iota$  be given. Let  $np\_2 : \iota$  be given. Let  $k2\_topgen\_5 : \iota$  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  $k2\_pre\_topc : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $v3\_pre\_topc : \iota \Rightarrow \iota \Rightarrow o$  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.

$$\begin{aligned} & \forall X0.(m1\_subset\_1 X0 (k1\_zfmisc\_1 (u1\_struct\_0 k3\_topgen\_5))) \Rightarrow \\ & ((X0 = k7\_subset\_1 (u1\_struct\_0 (k15\_euclid np\_2)) k2\_topgen\_5 \\ & k1\_topgen\_5) \Rightarrow (k2\_pre\_topc k3\_topgen\_5 X0 = k2\_struct\_0 k3\_topgen\_5)) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & (v3\_pre\_topc (k7\_subset\_1 (u1\_struct\_0 (k15\_euclid np\_2)) k2\_topgen\_5 \\ & k1\_topgen\_5) k3\_topgen\_5) \wedge (m1\_subset\_1 (k7\_subset\_1 (u1\_struct\_0 \\ & (k15\_euclid np\_2)) k2\_topgen\_5 k1\_topgen\_5) (k1\_zfmisc\_1 (u1\_struct\_0 \\ & k3\_topgen\_5))) \end{aligned} \quad (2)$$

Assume the following.

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

Assume the following.

$$\begin{aligned} & \forall X0.(l1\_pre\_topc X0) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 \\ & (u1\_struct\_0 X0))) \Rightarrow ((v1\_tops\_1 X1 X0) \Leftrightarrow (k2\_pre\_topc X0 X1 = k2\_struct\_0 \\ & X0))) \end{aligned} \quad (4)$$

**Theorem 1**

$(v1\_tops\_1 (k7\_subset\_1 (u1\_struct\_0 (k15\_euclid\ np\_2)) k2\_topgen\_5$   
 $k1\_topgen\_5) k3\_topgen\_5) \wedge (m1\_subset\_1 (k7\_subset\_1 (u1\_struct\_0$   
 $(k15\_euclid\ np\_2)) k2\_topgen\_5 k1\_topgen\_5) (k1\_zfmisc\_1 (u1\_struct\_0$   
 $k3\_topgen\_5)))$