

# t13\_topgen\_4 (TMYdUN- pYbc4UAqWcoXv6Bqg6otYaGKincy5)

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Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $v1\_prob\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v4\_prob\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v3\_topgen\_4 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v3\_measure1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v4\_card\_3 : \iota \Rightarrow o$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k5\_setfam\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k1\_zfmisc\_1 \\ & X0))) \Rightarrow ((v3\_measure1 X1 X0) \Leftrightarrow (\forall X2. ((\neg v1\_xboole\_0 X2) \wedge ( \\ & (v4\_card\_3 X2) \wedge (m1\_subset\_1 X2 (k1\_zfmisc\_1 (k1\_zfmisc\_1 X0)))))) \Rightarrow \\ & ((r1\_tarski X2 X1) \Rightarrow (k5\_setfam\_1 X0 X2 \in X1)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k1\_zfmisc\_1 \\ & X0))) \Rightarrow ((v3\_topgen\_4 X1 X0) \Leftrightarrow (\forall X2. ((v4\_card\_3 X2) \wedge (m1\_subset\_1 \\ & X2 (k1\_zfmisc\_1 (k1\_zfmisc\_1 X0)))))) \Rightarrow ((r1\_tarski X2 X1) \Rightarrow (k5\_setfam\_1 \\ & X0 X2 \in X1)))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k1\_zfmisc\_1 \\ & X0))) \Rightarrow ((v3\_topgen\_4 X1 X0) \Rightarrow (\neg v1\_xboole\_0 X1)) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k1\_zfmisc\_1 \\ & X0))) \Rightarrow (((\neg v1\_xboole\_0 X1) \wedge ((v1\_prob\_1 X1 X0) \wedge (v4\_prob\_1 X1 X0))) \Rightarrow \\ & ((\neg v1\_xboole\_0 X1) \wedge ((v1\_prob\_1 X1 X0) \wedge ((v4\_prob\_1 X1 X0) \wedge (v3\_topgen\_4 \\ & X1 X0)))))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k1\_zfmisc\_1 \\ & X0))) \Rightarrow (((v1\_prob\_1 X1 X0) \wedge (v3\_measure1 X1 X0)) \Rightarrow (v4\_prob\_1 X1 \\ & X0)) \end{aligned} \quad (5)$$

**Theorem 1**

$$\forall X0.\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 (k1\_zfmisc\_1 X0)))\Rightarrow(((\neg v1\_xboole\_0 X1)\wedge((v1\_prob\_1 X1 X0)\wedge((v4\_prob\_1 X1 X0)\wedge(m1\_subset\_1 X1 (k1\_zfmisc\_1 (k1\_zfmisc\_1 X0))))))\Leftrightarrow((v1\_prob\_1 X1 X0)\wedge(v3\_topgen\_4 X1 X0)))$$