

t35_topgen_5 (TM- PLFHhKCN3xFbZrcJTDRXDZwbMfzgxxbEu)

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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 $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k3_topgen_5 : \iota$ be given. Let $k1_topgen_5 : \iota$ 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 $k4_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k15_euclid : \iota \Rightarrow \iota$ be given. Let $np_2 : \iota$ be given. Let $k2_topgen_5 : \iota$ be given. Let $k2_struct_0 : \iota \Rightarrow \iota$ be given. Let $v4_pre_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3_pre_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l1_pre_topc : \iota \Rightarrow o$ be given. Let $v2_pre_topc : \iota \Rightarrow o$ be given. Let $k3_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v1_pre_topc : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. k4_xboole_0 X0 k1_xboole_0 = X0 \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. (m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 k3_topgen_5))) \Rightarrow \\ & ((X0 = k7_subset_1 (u1_struct_0 (k15_euclid np_2)) k2_topgen_5 \\ & k1_topgen_5) \Rightarrow (k2_pre_topc k3_topgen_5 X0 = k2_struct_0 k3_topgen_5)) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & (v4_pre_topc k1_topgen_5 k3_topgen_5) \wedge (m1_subset_1 k1_topgen_5 \\ & (k1_zfmisc_1 (u1_struct_0 k3_topgen_5))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & (v3_pre_topc (k7_subset_1 (u1_struct_0 (k15_euclid np_2)) k2_topgen_5 \\ & k1_topgen_5) k3_topgen_5) \wedge (m1_subset_1 (k7_subset_1 (u1_struct_0 \\ & (k15_euclid np_2)) k2_topgen_5 k1_topgen_5) (k1_zfmisc_1 (u1_struct_0 \\ & k3_topgen_5))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0. (l1_pre_topc X0) \Rightarrow (\forall X1. (m1_subset_1 X1 (k1_zfmisc_1 \\ & (u1_struct_0 X0))) \Rightarrow (((v4_pre_topc X1 X0) \Rightarrow (k2_pre_topc X0 X1 = \\ & X1)) \wedge (((v2_pre_topc X0) \wedge (k2_pre_topc X0 X1 = X1)) \Rightarrow (v4_pre_topc \\ & X1 X0)))) \end{aligned} \quad (5)$$

Assume the following.

$$\forall X0.m1_subset_1\ k1_xboole_0\ (k1_zfmisc_1\ X0) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1_subset_1\ X1\ (k1_zfmisc_1\ X0)) \Rightarrow (k7_subset_1\ X0\ X1\ X2 = k4_xboole_0\ X1\ X2) \quad (7)$$

Assume the following.

$$u1_struct_0\ k3_topgen_5 = k2_topgen_5 \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.(m1_subset_1\ X1\ (k1_zfmisc_1\ X0)) \Rightarrow (k3_subset_1\ X0\ (k3_subset_1\ X0\ X1) = X1) \quad (9)$$

Assume the following.

$$\forall X0.(l1_pre_topc\ X0) \Rightarrow (l1_struct_0\ X0) \quad (10)$$

Assume the following.

$$(\neg v2_struct_0\ k3_topgen_5) \wedge ((v1_pre_topc\ k3_topgen_5) \wedge ((v2_pre_topc\ k3_topgen_5) \wedge (l1_pre_topc\ k3_topgen_5))) \quad (11)$$

Assume the following.

$$m1_subset_1\ k2_topgen_5\ (k1_zfmisc_1\ (u1_struct_0\ (k15_euclid\ np_2))) \quad (12)$$

Assume the following.

$$\forall X0.\forall X1.(m1_subset_1\ X1\ (k1_zfmisc_1\ X0)) \Rightarrow (k3_subset_1\ X0\ X1 = k4_xboole_0\ X0\ X1) \quad (13)$$

Assume the following.

$$\forall X0.(l1_struct_0\ X0) \Rightarrow (k2_struct_0\ X0 = u1_struct_0\ X0) \quad (14)$$

Assume the following.

$$\forall X0.(l1_pre_topc\ X0) \Rightarrow (\forall X1.(m1_subset_1\ X1\ (k1_zfmisc_1\ (u1_struct_0\ X0))) \Rightarrow (k1_tops_1\ X0\ X1 = k3_subset_1\ (u1_struct_0\ X0)\ (k2_pre_topc\ X0\ (k3_subset_1\ (u1_struct_0\ X0)\ X1)))) \quad (15)$$

Theorem 1

$$\forall X0.(m1_subset_1\ X0\ (k1_zfmisc_1\ (u1_struct_0\ k3_topgen_5))) \Rightarrow ((X0 = k1_topgen_5) \Rightarrow ((k2_pre_topc\ k3_topgen_5\ X0 = X0) \wedge (k1_tops_1\ k3_topgen_5\ X0 = k1_xboole_0)))$$