

t46_topgen_3
(TMUg6HojFHY3ruk9u9iu4gcY2Lr4JUHhkGp)

October 27, 2020

Let $k1_compts_1 : \iota \Rightarrow \iota$ be given. Let $k7_topgen_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $u1_pre_topc : \iota \Rightarrow \iota$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $k9_setfam_1 : \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ 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. Let $k2_subset_1 : \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k1_tops_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k15_funcop_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $g1_pre_topc : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X1 (k1_zfmisc_1 X0)) \Rightarrow (u1_pre_topc (k7_topgen_3 X0 X1) = k2_xboole_0 (k1_tarski X0) (k9_setfam_1 X1)) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (X0 \in X1) \Rightarrow (k2_xboole_0 (k1_tarski X0) X1 = X1) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X0 X1) \Rightarrow ((v1_xboole_0 X1) \vee (X0 \in X1)) \quad (3)$$

Assume the following.

$$\forall X0. k9_setfam_1 X0 = k1_zfmisc_1 X0 \quad (4)$$

Assume the following.

$$\forall X0. \neg v1_xboole_0 (k1_zfmisc_1 X0) \quad (5)$$

Assume the following.

$$\forall X0. \forall X1. (v1_pre_topc (k7_topgen_3 X0 X1)) \wedge ((v2_pre_topc (k7_topgen_3 X0 X1)) \wedge (l1_pre_topc (k7_topgen_3 X0 X1))) \quad (6)$$

Assume the following.

$$\forall X0.m1_subset_1 (k2_subset_1 X0) (k1_zfmisc_1 X0) \quad (7)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.\forall X2.((v1_pre_topc X2)\wedge((v2_pre_topc \\ X2)\wedge(l1_pre_topc X2)))\Rightarrow((X2 = k7_topgen_3 X0 X1)\Leftrightarrow((u1_struct_0 \\ X2 = X0)\wedge(\forall X3.(m1_subset_1 X3 (k1_zfmisc_1 (u1_struct_0 \\ X2))\Rightarrow(k1_tops_1 X2 X3 = k15_funcop_1 (k1_zfmisc_1 (u1_struct_0 \\ X2)) X3 X0 X3 (k8_subset_1 (u1_struct_0 X2) X3 X1)))))) \end{aligned} \quad (8)$$

Assume the following.

$$\forall X0.k1_compts_1 X0 = g1_pre_topc X0 (k2_subset_1 (k9_setfam_1 X0)) \quad (9)$$

Assume the following.

$$\forall X0.k2_subset_1 X0 = X0 \quad (10)$$

Assume the following.

$$\forall X0.(l1_pre_topc X0)\Rightarrow((v1_pre_topc X0)\Rightarrow(X0 = g1_pre_topc (u1_struct_0 X0) (u1_pre_topc X0))) \quad (11)$$

Theorem 1 $\forall X0.k1_compts_1 X0 = k7_topgen_3 X0 X0.$