

t8_topgen_2 (TMRjb- nEU2EFkFcXeoTX3bhbCjHCWX8V7nFY)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v2_pre_topc : \iota \Rightarrow o$ be given. Let $l1_pre_topc : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $v1_tops_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_yellow_8 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $v3_pre_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. ((X0 \in X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 X2))) \Rightarrow (m1_subset_1 X0 X2) \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge (l1_pre_topc X0)) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. ((v1_tops_2 X2 \\ & X0) \wedge ((v1_yellow_8 X2 X0 X1) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k1_zfmisc_1 \\ & (u1_struct_0 X0)))))) \Rightarrow (\forall X3. (m1_subset_1 X3 (k1_zfmisc_1 \\ & (u1_struct_0 X0))) \Rightarrow (\neg (X1 \in X3) \wedge ((v3_pre_topc X3 X0) \wedge (\forall X4. \\ & (m1_subset_1 X4 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow (\neg (X4 \in X2) \wedge (\\ & r1_tarski X4 X3)))))))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge (l1_pre_topc X0)) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. ((v1_tops_2 X2 \\ & X0) \wedge ((v1_yellow_8 X2 X0 X1) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k1_zfmisc_1 \\ & (u1_struct_0 X0)))))) \Rightarrow (\forall X3. (m1_subset_1 X3 (k1_zfmisc_1 \\ & (u1_struct_0 X0))) \Rightarrow ((X3 \in X2) \Rightarrow ((v3_pre_topc X3 X0) \wedge (X1 \in X3)))))) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (m1_subset_1 X2 (k1_zfmisc_1 X0)) \Rightarrow (k9_subset_1 X0 X1 X2 = k3_xboole_0 X1 X2) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(((v2_pre_topc\ X0)\wedge(l1_pre_topc\ X0))\wedge(((v3_pre_topc\ X1\ X0)\wedge(m1_subset_1\ X1\ (k1_zfmisc_1\ (u1_struct_0\ X0))))\wedge((v3_pre_topc\ X2\ X0)\wedge(m1_subset_1\ X2\ (k1_zfmisc_1\ (u1_struct_0\ X0))))))\Rightarrow(v3_pre_topc\ (k3_xboole_0\ X1\ X2)\ X0) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1_subset_1\ X2\ (k1_zfmisc_1\ X0))\Rightarrow(m1_subset_1\ (k9_subset_1\ X0\ X1\ X2)\ (k1_zfmisc_1\ X0)) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(X2 = k3_xboole_0\ X0\ X1)\Leftrightarrow(\forall X3.(X3 \in X2)\Leftrightarrow((X3 \in X0)\wedge(X3 \in X1))) \quad (7)$$

Theorem 1

$$\forall X0.((\neg v2_struct_0\ X0)\wedge((v2_pre_topc\ X0)\wedge(l1_pre_topc\ X0)))\Rightarrow(\forall X1.(m1_subset_1\ X1\ (u1_struct_0\ X0))\Rightarrow(\forall X2.((v1_tops_2\ X2\ X0)\wedge((v1_yellow_8\ X2\ X0\ X1)\wedge(m1_subset_1\ X2\ (k1_zfmisc_1\ (k1_zfmisc_1\ (u1_struct_0\ X0))))))\Rightarrow(\forall X3.\forall X4.\neg(X3 \in X2)\wedge((X4 \in X2)\wedge(\forall X5.((v3_pre_topc\ X5\ X0)\wedge(m1_subset_1\ X5\ (k1_zfmisc_1\ (u1_struct_0\ X0))))\Rightarrow(\neg(X5 \in X2)\wedge(r1_tarski\ X5\ (k3_xboole_0\ X3\ X4))))))))))$$