

t10_pre_topc
(TMV2QS4vJdviHSNwk6YZp4E2wLWcNhLeMJY)

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Let $l1_pre_topc : \iota \Rightarrow o$ be given. Let $g1_pre_topc : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $u1_pre_topc : \iota \Rightarrow \iota$ be given. Let $m1_pre_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k9_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ be given. Let $k2_struct_0 : \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ 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.

$$\forall X0. \forall X1. \forall X2. (m1_subset_1 X2 (k1_zfmisc_1 X0)) \Rightarrow (k9_subset_1 X0 X1 X2 = k3_xboole_0 X1 X2) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (k1_zfmisc_1 X0))) \Rightarrow (\forall X2. \forall X3. (g1_pre_topc X0 X1 = g1_pre_topc X2 X3) \Rightarrow ((X0 = X2) \wedge (X1 = X3))) \quad (3)$$

Assume the following.

$$\forall X0. (l1_pre_topc X0) \Rightarrow (m1_subset_1 (u1_pre_topc X0) (k1_zfmisc_1 (k1_zfmisc_1 (u1_struct_0 X0)))) \quad (4)$$

Assume the following.

$$\forall X0. (l1_pre_topc X0) \Rightarrow (l1_struct_0 X0) \quad (5)$$

Assume the following.

$$\forall X0. (l1_struct_0 X0) \Rightarrow (m1_subset_1 (k2_struct_0 X0) (k1_zfmisc_1 (u1_struct_0 X0))) \quad (6)$$

Assume the following.

$$\begin{aligned} \forall X0.(l1_pre_topc\ X0) \Rightarrow (\forall X1.(l1_pre_topc\ X1) \Rightarrow ((\\ m1_pre_topc\ X1\ X0) \Leftrightarrow ((r1_tarSKI\ (k2_struct_0\ X1)\ (k2_struct_0 \\ X0)) \wedge (\forall X2.(m1_subset_1\ X2\ (k1_zfmisc_1\ (u1_struct_0\ X1))) \Rightarrow \\ ((X2 \in u1_pre_topc\ X1) \Leftrightarrow (\exists X3.(m1_subset_1\ X3\ (k1_zfmisc_1 \\ (u1_struct_0\ X0))) \wedge ((X3 \in u1_pre_topc\ X0) \wedge (X2 = k9_subset_1\ (u1_struct_0 \\ X1)\ X3\ (k2_struct_0\ X1)))))))))) \end{aligned} \quad (7)$$

Assume the following.

$$\forall X0.(l1_struct_0\ X0) \Rightarrow (k2_struct_0\ X0 = u1_struct_0\ X0) \quad (8)$$

Theorem 1

$$\begin{aligned} \forall X0.(l1_pre_topc\ X0) \Rightarrow (\forall X1.(l1_pre_topc\ X1) \Rightarrow (\forall X2. \\ (l1_pre_topc\ X2) \Rightarrow (\forall X3.(l1_pre_topc\ X3) \Rightarrow (((g1_pre_topc \\ (u1_struct_0\ X0)\ (u1_pre_topc\ X0) = g1_pre_topc\ (u1_struct_0\ X1) \\ (u1_pre_topc\ X1)) \wedge ((g1_pre_topc\ (u1_struct_0\ X2)\ (u1_pre_topc \\ X2) = g1_pre_topc\ (u1_struct_0\ X3)\ (u1_pre_topc\ X3)) \wedge (m1_pre_topc \\ X2\ X0))) \Rightarrow (m1_pre_topc\ X3\ X1)))))) \end{aligned}$$