

t11_pre_topc (TMZaCZyiVJcTKbQHWxHmv- DUqmPMaQ2YnEtu)

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Let $l1_pre_topc : \iota \Rightarrow o$ 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 $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ be given. Let $k2_struct_0 : \iota \Rightarrow \iota$ be given. Let $u1_pre_topc : \iota \Rightarrow \iota$ be given. Let $k9_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X0 (k1_zfmisc_1 X1)) \Leftrightarrow (r1_tarski X0 X1) \quad (1)$$

Assume the following.

$$\forall X0. (l1_pre_topc X0) \Rightarrow (\forall X1. (m1_pre_topc X1 X0) \Rightarrow (l1_pre_topc X1)) \quad (2)$$

Assume the following.

$$\forall X0. (l1_pre_topc X0) \Rightarrow (l1_struct_0 X0) \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0. (l1_pre_topc X0) \Rightarrow (\forall X1. (l1_pre_topc X1) \Rightarrow ((\\ m1_pre_topc X1 X0) \Leftrightarrow ((r1_tarski (k2_struct_0 X1) (k2_struct_0 \\ X0)) \wedge (\forall X2. (m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 X1))) \Rightarrow \\ ((X2 \in u1_pre_topc X1) \Leftrightarrow (\exists X3. (m1_subset_1 X3 (k1_zfmisc_1 \\ (u1_struct_0 X0))) \wedge ((X3 \in u1_pre_topc X0) \wedge (X2 = k9_subset_1 (u1_struct_0 \\ X1) X3 (k2_struct_0 X1)))))))))) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. (r1_tarski X0 X1) \Leftrightarrow (\forall X2. (X2 \in X0) \Rightarrow (X2 \in X1)) \quad (5)$$

Assume the following.

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

Theorem 1

$$\begin{aligned} & \forall X0.(l1_pre_topc\ X0) \Rightarrow (\forall X1.(m1_pre_topc\ X1\ X0) \Rightarrow \\ & (\forall X2.(m1_subset_1\ X2\ (k1_zfmisc_1\ (u1_struct_0\ X1))) \Rightarrow \\ & (m1_subset_1\ X2\ (k1_zfmisc_1\ (u1_struct_0\ X0)))))) \end{aligned}$$