

t14_tdlat_1 (TM-
cXRYUn7Un8gXFB9kkWpR7BaJtFoYbEumg)

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Let $v2_pre_topc : \iota \Rightarrow o$ be given. Let $l1_pre_topc : \iota \Rightarrow o$ be given. Let $v4_tops_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_struct_0 : \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $v4_pre_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_pre_topc : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_tops_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (X0 = k1_xboole_0) \quad (1)$$

Assume the following.

$$\forall X0.(l1_pre_topc X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow (((v4_pre_topc X1 X0) \Rightarrow (k2_pre_topc X0 X1 = X1)) \wedge (((v2_pre_topc X0) \wedge (k2_pre_topc X0 X1 = X1)) \Rightarrow (v4_pre_topc X1 X0)))) \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.r1_tarski X0 X0 \quad (3)$$

Assume the following.

$$\forall X0.\exists X1.(m1_subset_1 X1 (k1_zfmisc_1 X0)) \wedge (v1_xboole_0 X1) \quad (4)$$

Assume the following.

$$\forall X0.(l1_pre_topc X0) \Rightarrow (v1_xboole_0 (k1_tops_1 X0 (k1_struct_0 X0))) \quad (5)$$

Assume the following.

$$\forall X0.(l1_pre_topc X0) \Rightarrow (l1_struct_0 X0) \quad (6)$$

Assume the following.

$$\begin{aligned} \forall X0.(l1_pre_topc\ X0) \Rightarrow (\forall X1.(m1_subset_1\ X1\ (k1_zfmisc_1 \\ (u1_struct_0\ X0))) \Rightarrow ((v4_tops_1\ X1\ X0) \Leftrightarrow ((r1_tarski\ (k1_tops_1 \\ X0\ (k2_pre_topc\ X0\ X1))\ X1) \wedge (r1_tarski\ X1\ (k2_pre_topc\ X0\ (k1_tops_1 \\ X0\ X1)))))) \end{aligned} \quad (7)$$

Assume the following.

$$\forall X0.(l1_struct_0\ X0) \Rightarrow (k1_struct_0\ X0 = k1_xboole_0) \quad (8)$$

Assume the following.

$$\begin{aligned} \forall X0.((v2_pre_topc\ X0) \wedge (l1_pre_topc\ X0)) \Rightarrow (\forall X1. \\ (m1_subset_1\ X1\ (k1_zfmisc_1\ (u1_struct_0\ X0))) \Rightarrow ((v1_xboole_0 \\ X1) \Rightarrow (v4_pre_topc\ X1\ X0))) \end{aligned} \quad (9)$$

Theorem 1

$$\forall X0.((v2_pre_topc\ X0) \wedge (l1_pre_topc\ X0)) \Rightarrow (v4_tops_1\ (\\ k1_struct_0\ X0)\ X0)$$