

t33_tdlat_3

(TMHdUauj65Cb7YsVm4bpbMP16skgMBgqtqt)

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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 $v4_tdlat_3 : \iota \Rightarrow o$ 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 $v4_tops_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v5_tops_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v6_tops_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3_pre_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v4_pre_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((v2_pre_topc X0) \wedge (l1_pre_topc X0)) \Rightarrow (\forall X1. \\ & (l1_pre_topc X1) \Rightarrow (\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 \\ & X0))) \Rightarrow (\forall X3.(m1_subset_1 X3 (k1_zfmisc_1 (u1_struct_0 \\ & X1))) \Rightarrow (((v3_pre_topc X3 X1) \wedge (v4_tops_1 X3 X1)) \Rightarrow (v6_tops_1 X3 \\ & X1)) \wedge ((v6_tops_1 X2 X0) \Rightarrow ((v3_pre_topc X2 X0) \wedge (v4_tops_1 X2 X0)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v2_pre_topc X0) \wedge (l1_pre_topc X0)) \Rightarrow (\forall X1. \\ & (l1_pre_topc X1) \Rightarrow (\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 \\ & X0))) \Rightarrow (\forall X3.(m1_subset_1 X3 (k1_zfmisc_1 (u1_struct_0 \\ & X1))) \Rightarrow (((v4_pre_topc X3 X1) \wedge (v4_tops_1 X3 X1)) \Rightarrow (v5_tops_1 X3 \\ & X1)) \wedge ((v5_tops_1 X2 X0) \Rightarrow ((v4_pre_topc X2 X0) \wedge (v4_tops_1 X2 X0)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc \\ & X0))) \Rightarrow ((v4_tdlat_3 X0) \Leftrightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 \\ & (u1_struct_0 X0))) \Rightarrow ((v4_tops_1 X1 X0) \Rightarrow ((v4_pre_topc X1 X0) \wedge (\\ & v3_pre_topc X1 X0)))))) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0. \exists X1.(m1_subset_1 X1 (k1_zfmisc_1 X0)) \wedge (\neg v1_subset_1 X1 X0) \quad (4)$$

Theorem 1

$$\forall X0.((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc X0))) \Rightarrow ((v4_tdlat_3 X0) \Leftrightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow ((v4_tops_1 X1 X0) \Rightarrow ((v5_tops_1 X1 X0) \wedge (v6_tops_1 X1 X0)))))$$