

t48_tdlat_3

(TMLteMvAkdsEZMruhzfLygcgPpHHxp8eFU3)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v2_pre_topc : \iota \Rightarrow o$ be given. Let $v4_tdlat_3 : \iota \Rightarrow o$ be given. Let $l1_pre_topc : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $v1_tdlat_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_tdlat_1 : \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k16_lattice3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_tops_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_setfam_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_struct_0 : \iota \Rightarrow \iota$ be given. Let $k9_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_pre_topc : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k9_tdlat_1 : \iota \Rightarrow \iota$ be given. Let $v3_tdlat_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_tdlat_1 : \iota \Rightarrow \iota$ be given. Let $k12_tdlat_1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc \\ & X0))) \Rightarrow (\forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (k1_zfmisc_1 \\ & (u1_struct_0 X0)))) \Rightarrow ((v1_tdlat_2 X1 X0) \Rightarrow (\forall X2. (m1_subset_1 \\ & X2 (k1_zfmisc_1 (u1_struct_0 (k4_tdlat_1 X0)))) \Rightarrow ((X2 = X1) \Rightarrow ((\\ & (X2 \neq k1_xboole_0) \Rightarrow (k16_lattice3 (k4_tdlat_1 X0) X2 = k9_subset_1 \\ & (u1_struct_0 X0) (k6_setfam_1 (u1_struct_0 X0) X1) (k2_pre_topc \\ & X0 (k1_tops_1 X0 (k6_setfam_1 (u1_struct_0 X0) X1)))))) \wedge ((X2 = k1_xboole_0) \Rightarrow \\ & (k16_lattice3 (k4_tdlat_1 X0) X2 = k2_struct_0 X0)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc \\ & X0))) \Rightarrow (\forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (k1_zfmisc_1 \\ & (u1_struct_0 X0)))) \Rightarrow ((r1_tarski X1 (k9_tdlat_1 X0)) \Leftrightarrow (v3_tdlat_2 \\ & X1 X0))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc \\ & X0))) \Rightarrow (\forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (k1_zfmisc_1 \\ & (u1_struct_0 X0)))) \Rightarrow ((r1_tarski X1 (k1_tdlat_1 X0)) \Leftrightarrow (v1_tdlat_2 \\ & X1 X0))) \end{aligned} \tag{3}$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge ((v4_tdlat_3 X0) \wedge (l1_pre_topc X0)))) \Rightarrow (k4_tdlat_1 X0 = k12_tdlat_1 X0) \quad (4)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge ((v4_tdlat_3 X0) \wedge (l1_pre_topc X0)))) \Rightarrow (k1_tdlat_1 X0 = k9_tdlat_1 X0) \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc \\ & X0))) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (k1_zfmisc_1 \\ & (u1_struct_0 X0)))) \Rightarrow ((v3_tdlat_2 X1 X0) \Rightarrow (\forall X2.(m1_subset_1 \\ & X2 (k1_zfmisc_1 (u1_struct_0 (k12_tdlat_1 X0)))) \Rightarrow ((X2 = X1) \Rightarrow (\\ & ((X2 \neq k1_xboole_0) \Rightarrow (k16_lattice3 (k12_tdlat_1 X0) X2 = k1_tops_1 \\ & X0 (k6_setfam_1 (u1_struct_0 X0) X1))) \wedge ((X2 = k1_xboole_0) \Rightarrow (k16_lattice3 \\ & (k12_tdlat_1 X0) X2 = k2_struct_0 X0)))))) \end{aligned} \quad (6)$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge ((v4_tdlat_3 \\ & X0) \wedge (l1_pre_topc X0)))) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 \\ & (k1_zfmisc_1 (u1_struct_0 X0)))) \Rightarrow ((v1_tdlat_2 X1 X0) \Rightarrow (\forall X2. \\ & (m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 (k4_tdlat_1 X0)))) \Rightarrow \\ & ((X2 = X1) \Rightarrow ((X2 \neq k1_xboole_0) \Rightarrow (k16_lattice3 (k4_tdlat_1 X0) \\ & X2 = k1_tops_1 X0 (k6_setfam_1 (u1_struct_0 X0) X1))) \wedge ((X2 = k1_xboole_0) \Rightarrow \\ & (k16_lattice3 (k4_tdlat_1 X0) X2 = k2_struct_0 X0)))))) \end{aligned}$$