

t11_tdlat_1

(TMKajGeU5357F1cpU68gPuEpnkfxATVdyG4)

October 27, 2020

Let $v2_pre_topc : \iota \Rightarrow o$ 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 $k4_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_tops_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_pre_topc : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((v2_pre_topc X0) \wedge (l1_pre_topc X0)) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow (\forall X2. \\ & (m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 X0)))) \Rightarrow (k4_subset_1 \\ & (u1_struct_0 X0) (k1_tops_1 X0 (k2_pre_topc X0 (k4_subset_1 (u1_struct_0 \\ & X0) X1 (k4_subset_1 (u1_struct_0 X0) (k1_tops_1 X0 (k2_pre_topc \\ & X0 X2)) X2)))) (k4_subset_1 (u1_struct_0 X0) X1 (k4_subset_1 (u1_struct_0 \\ & X0) (k1_tops_1 X0 (k2_pre_topc X0 X2)) X2)) = k4_subset_1 (u1_struct_0 \\ & X0) (k1_tops_1 X0 (k2_pre_topc X0 (k4_subset_1 (u1_struct_0 X0) \\ & X1 X2))) (k4_subset_1 (u1_struct_0 X0) X1 X2)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. ((m1_subset_1 X1 (k1_zfmisc_1 \\ & X0)) \wedge (m1_subset_1 X2 (k1_zfmisc_1 X0))) \Rightarrow (m1_subset_1 (k4_subset_1 \\ & X0 X1 X2) (k1_zfmisc_1 X0)) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((l1_pre_topc X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 \\ & (u1_struct_0 X0)))) \Rightarrow (m1_subset_1 (k2_pre_topc X0 X1) (k1_zfmisc_1 \\ & (u1_struct_0 X0))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((l1_pre_topc X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 \\ & (u1_struct_0 X0)))) \Rightarrow (m1_subset_1 (k1_tops_1 X0 X1) (k1_zfmisc_1 \\ & (u1_struct_0 X0))) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((m1_subset_1 X1 (k1_zfmisc_1 X0))\wedge(m1_subset_1 X2 (k1_zfmisc_1 X0)))\Rightarrow(k4_subset_1 X0 X1 X2 = k4_subset_1 X0 X2 X1) \quad (5)$$

Theorem 1

$$\begin{aligned} &\forall X0.((v2_pre_topc X0)\wedge(l1_pre_topc X0))\Rightarrow(\forall X1. \\ &\quad (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0)))\Rightarrow(\forall X2. \\ &\quad (m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 X0)))\Rightarrow(k4_subset_1 \\ &\quad (u1_struct_0 X0) (k1_tops_1 X0 (k2_pre_topc X0 (k4_subset_1 (u1_struct_0 \\ &\quad X0) (k4_subset_1 (u1_struct_0 X0) (k1_tops_1 X0 (k2_pre_topc X0 \\ &\quad X1)) X1) X2))) (k4_subset_1 (u1_struct_0 X0) (k4_subset_1 (u1_struct_0 \\ &\quad X0) (k1_tops_1 X0 (k2_pre_topc X0 X1)) X1) X2) = k4_subset_1 (u1_struct_0 \\ &\quad X0) (k1_tops_1 X0 (k2_pre_topc X0 (k4_subset_1 (u1_struct_0 X0) \\ &\quad X1 X2))) (k4_subset_1 (u1_struct_0 X0) X1 X2)))) \end{aligned}$$