

t6_tex_1

(TMdo29jBCbEUGqHe2xtqjVQyZDDYKwmEVyQ)

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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 $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k6_tmap_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2_tops_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v4_pre_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_pre_topc : \iota \Rightarrow \iota$ be given. Let $k5_tmap_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_tops_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3_pre_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_pre_topc : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc \\ X0))) \Rightarrow (\forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 \\ X0))) \Rightarrow ((u1_struct_0 (k6_tmap_1 X0 X1) = u1_struct_0 X0) \wedge (u1_pre_topc \\ (k6_tmap_1 X0 X1) = k5_tmap_1 X0 X1))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} \forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc \\ X0))) \Rightarrow (\forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 \\ X0))) \Rightarrow (\forall X2. (m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 \\ (k6_tmap_1 X0 X1)))) \Rightarrow (((X2 = X1) \wedge (v1_tops_1 X1 X0)) \Rightarrow ((v1_tops_1 \\ X2 (k6_tmap_1 X0 X1)) \wedge (v3_pre_topc X2 (k6_tmap_1 X0 X1)))))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} \forall X0. (l1_pre_topc X0) \Rightarrow (\forall X1. (m1_subset_1 X1 (k1_zfmisc_1 \\ (u1_struct_0 X0))) \Rightarrow ((v4_pre_topc X1 X0) \Leftrightarrow (v3_pre_topc (k3_subset_1 \\ (u1_struct_0 X0) X1) X0))) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. (((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge \\ (l1_pre_topc X0))) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 \\ X0)))) \Rightarrow ((v1_pre_topc (k6_tmap_1 X0 X1)) \wedge ((v2_pre_topc (k6_tmap_1 \\ X0 X1)) \wedge (l1_pre_topc (k6_tmap_1 X0 X1)))) \end{aligned} \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 X0))\Rightarrow(m1_subset_1 (k3_subset_1 X0 X1) (k1_zfmisc_1 X0)) \quad (5)$$

Assume the following.

$$\forall X0.(l1_pre_topc X0)\Rightarrow(\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0)))\Rightarrow((v2_tops_1 X1 X0)\Leftrightarrow(v1_tops_1 (k3_subset_1 (u1_struct_0 X0) X1) X0))) \quad (6)$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0)\wedge((v2_pre_topc X0)\wedge(l1_pre_topc X0)))\Rightarrow(\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0)))\Rightarrow(\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 (k6_tmap_1 X0 (k3_subset_1 (u1_struct_0 X0) X1))))))\Rightarrow(((X2 = X1)\wedge (v2_tops_1 X1 X0))\Rightarrow((v2_tops_1 X2 (k6_tmap_1 X0 (k3_subset_1 (u1_struct_0 X0) X1)))\wedge(v4_pre_topc X2 (k6_tmap_1 X0 (k3_subset_1 (u1_struct_0 X0) X1))))))) \end{aligned}$$