

t47_tex_4

(TMS2Acr46TRvENyLB3aPEsurv4a15JzAoUk)

October 27, 2020

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 $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $r1_tarSKI : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_tex_4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_setfam_1 : \iota \Rightarrow \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ 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 $k6_domain_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_tex_4 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_setfam_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_tex_4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. ((X0 \in X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 X2))) \Rightarrow (m1_subset_1 X0 X2) \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc \\ & X0))) \Rightarrow (\forall X1. (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (k2_pre_topc \\ & X0 (k6_domain_1 (u1_struct_0 X0) X1) = k1_setfam_1 (ReplSep (toset \\ & (\lambda X2 : \iota. m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 X0)))) \\ & (\lambda X2 : \iota. (v4_pre_topc X2 X0) \wedge (X1 \in X2)) (\lambda X2 : \iota. X2)))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge (l1_pre_topc X0)) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. (m1_subset_1 X2 \\ & (u1_struct_0 X0)) \Rightarrow ((X2 \in k2_tex_4 X0 X1) \Leftrightarrow (k2_tex_4 X0 X2 = k2_tex_4 \\ & X0 X1)))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge (l1_pre_topc X0)) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (v1_tex_4 (k5_setfam_1 (u1_struct_0 \\ & X0) (k1_tex_4 X0 X1)) X0)) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((l1_pre_topc X0) \wedge (m1_subset_1 X1 (u1_struct_0 \\ & X0))) \Rightarrow (m1_subset_1 (k2_tex_4 X0 X1) (k1_zfmisc_1 (u1_struct_0 \\ & X0))) \end{aligned} \quad (5)$$

Assume the following.

$$\forall X0.(l1_pre_topc\ X0) \Rightarrow (\forall X1.(m1_subset_1\ X1\ (u1_struct_0\ X0)) \Rightarrow (k2_tex_4\ X0\ X1 = k5_setfam_1\ (u1_struct_0\ X0)\ (k1_tex_4\ X0\ X1))) \quad (6)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0\ X0) \wedge ((v2_pre_topc\ X0) \wedge (l1_pre_topc\ X0))) \Rightarrow (\forall X1.(m1_subset_1\ X1\ (k1_zfmisc_1\ (u1_struct_0\ X0))) \Rightarrow ((v1_tex_4\ X1\ X0) \Leftrightarrow (\forall X2.(m1_subset_1\ X2\ (u1_struct_0\ X0)) \Rightarrow ((X2 \in X1) \Rightarrow (r1_tarski\ X1\ (k2_pre_topc\ X0\ (k6_domain_1\ (u1_struct_0\ X0)\ X2))))))) \quad (7)$$

Theorem 1

$$\forall X0.((\neg v2_struct_0\ X0) \wedge ((v2_pre_topc\ X0) \wedge (l1_pre_topc\ X0))) \Rightarrow (\forall X1.(m1_subset_1\ X1\ (u1_struct_0\ X0)) \Rightarrow (r1_tarski\ (k2_tex_4\ X0\ X1)\ (k1_setfam_1\ (ReplSep\ (toset\ (\lambda X2 : \iota.m1_subset_1\ X2\ (k1_zfmisc_1\ (u1_struct_0\ X0)))))\ (\lambda X2 : \iota.(v4_pre_topc\ X2\ X0) \wedge (X1 \in X2))\ (\lambda X2 : \iota.X2))))))$$