

t14_yellow17
(TMFKPWPaiQoS4Z4nZQCtuiJiD6kykEetJ6F)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $l1_pre_topc : \iota \Rightarrow o$ be given. Let $v1_compts_1 : \iota \Rightarrow o$ 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 $v1_tops_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_struct_0 : \iota \Rightarrow \iota$ be given. Let $k3_tarski : \iota \Rightarrow \iota$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $m1_setfam_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0.(l1_pre_topc X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 \\ (k1_zfmisc_1 (u1_struct_0 X0)))) \Rightarrow ((m1_setfam_1 X1 (u1_struct_0 \\ X0)) \Leftrightarrow (r1_tarski (u1_struct_0 X0) (k3_tarski X1)))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0.(l1_pre_topc X0) \Rightarrow (l1_struct_0 X0) \quad (2)$$

Assume the following.

$$\forall X0.(l1_struct_0 X0) \Rightarrow (k2_struct_0 X0 = u1_struct_0 X0) \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0.(l1_pre_topc X0) \Rightarrow ((v1_compts_1 X0) \Leftrightarrow (\forall X1.(\\ m1_subset_1 X1 (k1_zfmisc_1 (k1_zfmisc_1 (u1_struct_0 X0)))) \Rightarrow \\ (\neg(m1_setfam_1 X1 (u1_struct_0 X0)) \wedge ((v1_tops_2 X1 X0) \wedge (\forall X2. \\ (m1_subset_1 X2 (k1_zfmisc_1 (k1_zfmisc_1 (u1_struct_0 X0)))) \Rightarrow \\ (\neg(r1_tarski X2 X1) \wedge ((m1_setfam_1 X2 (u1_struct_0 X0)) \wedge (v1_finset_1 \\ X2)))))))))) \end{aligned} \quad (4)$$

Theorem 1

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge (l1_pre_topc X0)) \Rightarrow ((v1_compts_1 \\ X0) \Leftrightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (k1_zfmisc_1 (u1_struct_0 \\ X0)))) \Rightarrow (\neg(v1_tops_2 X1 X0) \wedge ((r1_tarski (k2_struct_0 X0) (k3_tarski \\ X1)) \wedge (\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (k1_zfmisc_1 (\\ u1_struct_0 X0)))) \Rightarrow (\neg(r1_tarski X2 X1) \wedge ((r1_tarski (k2_struct_0 \\ X0) (k3_tarski X2)) \wedge (v1_finset_1 X2)))))))))) \end{aligned}$$