

t4_topdim_1
(TMPpDaf9cA1iqT7JYxfLi3XapVwHT4C6kEq)

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 $v2_topdim_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_topdim_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k13_prob_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_numbers : \iota$ be given. Let $k9_setfam_1 : \iota \Rightarrow \iota$ be given. Let $k1_topdim_1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((v2_pre_topc X0) \wedge (l1_pre_topc X0)) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (k1_zfmisc_1 (k1_zfmisc_1 (u1_struct_0 X0)))) \Rightarrow \\ & ((v2_topdim_1 X1 X0) \Leftrightarrow (\exists X2.(v7_ordinal1 X2) \wedge (r1_tarski \\ & X1 (k13_prob_1 (u1_struct_0 X0) k5_numbers (k9_setfam_1 (u1_struct_0 \\ & X0)) (k1_topdim_1 X0) X2)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0. \forall X1. (r1_tarski X0 X1) \Leftrightarrow (\forall X2. (X2 \in X0) \Rightarrow (X2 \in X1)) \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0.((v2_pre_topc X0) \wedge (l1_pre_topc X0)) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow ((v1_topdim_1 \\ & X1 X0) \Leftrightarrow (\exists X2.(v7_ordinal1 X2) \wedge (X1 \in k13_prob_1 (u1_struct_0 \\ & X0) k5_numbers (k9_setfam_1 (u1_struct_0 X0)) (k1_topdim_1 X0) \\ & X2)))))) \end{aligned} \tag{3}$$

Theorem 1

$$\begin{aligned} & \forall X0.((v2_pre_topc X0) \wedge (l1_pre_topc X0)) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow (\forall X2. \\ & (m1_subset_1 X2 (k1_zfmisc_1 (k1_zfmisc_1 (u1_struct_0 X0)))) \Rightarrow \\ & (((X1 \in X2) \wedge (v2_topdim_1 X2 X0)) \Rightarrow (v1_topdim_1 X1 X0)))) \end{aligned}$$