

t24_topalg_6
(TMUfRMCQ8cm78ZbgoQkVZZ6xvQ1JVBkqubo)

October 27, 2020

Let $l1_pre_topc : \iota \Rightarrow o$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_numbers : \iota$ be given. Let $k2_struct_0 : \iota \Rightarrow \iota$ be given. Let $k1_topalg_6 : \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v4_topalg_6 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k2_topalg_2 : \iota$ be given. Let $k3_topmetr : \iota$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X0 (k1_zfmisc_1 X1)) \Leftrightarrow (r1_tarski X0 X1) \quad (1)$$

Assume the following.

$$\forall X0. (l1_pre_topc X0) \Rightarrow (\forall X1. (m2_subset_1 X1 (k4_partfun1 k1_numbers (k2_struct_0 X0)) (k1_topalg_6 X0)) \Rightarrow ((v1_funct_1 X1) \wedge ((v4_topalg_6 X1 X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 k2_topalg_2) (u1_struct_0 X0)))))))) \quad (2)$$

Assume the following.

$$u1_struct_0 k3_topmetr = k1_numbers \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (r1_tarski X0 (k2_zfmisc_1 X1 X2)) \Rightarrow ((r1_tarski (k9_xtuple_0 X0) X1) \wedge (r1_tarski (k10_xtuple_0 X0) X2)) \quad (4)$$

Assume the following.

$$k2_topalg_2 = k3_topmetr \quad (5)$$

Assume the following.

$$\forall X0. (l1_pre_topc X0) \Rightarrow (l1_struct_0 X0) \quad (6)$$

Assume the following.

$$\forall X0.(l1_struct_0 X0) \Rightarrow (k2_struct_0 X0 = u1_struct_0 X0) \quad (7)$$

Theorem 1

$$\begin{aligned} \forall X0.(l1_pre_topc X0) \Rightarrow (\forall X1.(m2_subset_1 X1 (k4_partfun1 \\ k1_numbers (k2_struct_0 X0)) (k1_topalg_6 X0)) \Rightarrow ((r1_tarski (\\ k9_xtuple_0 X1) k1_numbers) \wedge (r1_tarski (k10_xtuple_0 X1) (k2_struct_0 \\ X0)))) \end{aligned}$$