

t21_topalg_6

(TMRYmNqbA5o1XagasqLnGrpXFnLBafAjbvo)

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 $k1_xboole_0 : \iota$ 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 $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v4_topalg_6 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k2_topalg_2 : \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v2_relat_1 : \iota \Rightarrow o$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v5_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (X0 = k1_xboole_0) \quad (1)$$

Assume the following.

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

Assume the following.

$$\forall X0.\exists X1.(v1_relat_1 X1) \wedge ((v2_relat_1 X1) \wedge ((v4_relat_1 \\ X1 X0) \wedge (v1_funct_1 X1))) \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.\exists X2.(m1_subset_1 X2 (k1_zfmisc_1 \\ (k2_zfmisc_1 X0 X1))) \wedge ((v1_xboole_0 X2) \wedge ((v1_relat_1 X2) \wedge ((\\ v4_relat_1 X2 X0) \wedge (v5_relat_1 X2 X1)))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} \forall X0.(l1_pre_topc X0) \Rightarrow (\forall X1.((v1_funct_1 X1) \wedge (m1_subset_1 \\ X1 (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 k2_topalg_2) (u1_struct_0 \\ X0)))))) \Rightarrow ((X1 = k1_xboole_0) \Rightarrow (v4_topalg_6 X1 X0)) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} \forall X0.(v1_xboole_0 X0) \Rightarrow (\forall X1.((v1_relat_1 X1) \wedge (v4_relat_1 \\ X1 X0)) \Rightarrow ((v1_xboole_0 X1) \wedge ((v1_relat_1 X1) \wedge (v4_relat_1 X1 X0)))) \end{aligned} \quad (6)$$

Theorem 1

$$\forall X0.(l1_pre_topc X0) \Rightarrow (m2_subset_1 k1_xboole_0 (k4_partfun1 \\ k1_numbers (k2_struct_0 X0)) (k1_topalg_6 X0))$$