

t19_connsp_3
(TMFnunpBwA49csCp8pBQBRj97USc2Nnw66h)

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 $m1_connsp_3 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_struct_0 : \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $v3_connsp_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_setfam_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Assume the following.

$$\begin{aligned} \forall X0.(l1_pre_topc\ X0) \Rightarrow (\exists X1.(m1_subset_1\ X1\ (k1_zfmisc_1 \\ (k1_zfmisc_1\ (u1_struct_0\ X0)))) \wedge ((\forall X2.(m1_subset_1 \\ X2\ (k1_zfmisc_1\ (u1_struct_0\ X0))) \Rightarrow ((X2 \in X1) \Rightarrow (v3_connsp_1\ X2 \\ X0))) \wedge (k1_struct_0\ X0 = k5_setfam_1\ (u1_struct_0\ X0\ X1))) \end{aligned} \quad (1)$$

Assume the following.

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

Assume the following.

$$\forall X0.(l1_struct_0\ X0) \Rightarrow (m1_subset_1\ (k1_struct_0\ X0)\ (k1_zfmisc_1\ (u1_struct_0\ X0))) \quad (3)$$

Assume the following.

$$\forall X0.(l1_struct_0\ X0) \Rightarrow (k1_struct_0\ X0 = k1_xboole_0) \quad (4)$$

Assume the following.

$$\begin{aligned} \forall X0.(l1_pre_topc\ X0) \Rightarrow (\forall X1.(m1_subset_1\ X1\ (k1_zfmisc_1 \\ (u1_struct_0\ X0))) \Rightarrow ((m1_connsp_3\ X1\ X0) \Leftrightarrow (\exists X2.(m1_subset_1 \\ X2\ (k1_zfmisc_1\ (k1_zfmisc_1\ (u1_struct_0\ X0)))) \wedge ((\forall X3. \\ (m1_subset_1\ X3\ (k1_zfmisc_1\ (u1_struct_0\ X0))) \Rightarrow ((X3 \in X2) \Rightarrow (v3_connsp_1 \\ X3\ X0))) \wedge (X1 = k5_setfam_1\ (u1_struct_0\ X0\ X2)))))) \end{aligned} \quad (5)$$

Theorem 1

$$\forall X0.((\neg v2_struct_0\ X0) \wedge ((v2_pre_topc\ X0) \wedge (l1_pre_topc\ X0))) \Rightarrow (m1_connsp_3\ (k1_struct_0\ X0)\ X0)$$