

t3_connsp_2
(TMKtTEka7EBL76fqSrmMszf9oeqv6y5Z8Z)

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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 $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $v3_pre_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_connsp_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_tops_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((v2_pre_topc X0) \wedge (l1_pre_topc X0)) \Rightarrow (\forall X1. \\ & (l1_pre_topc X1) \Rightarrow (\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 \\ & X0))) \Rightarrow (\forall X3.(m1_subset_1 X3 (k1_zfmisc_1 (u1_struct_0 \\ & X1))) \Rightarrow (((v3_pre_topc X3 X1) \Rightarrow (k1_tops_1 X1 X3 = X3)) \wedge ((k1_tops_1 \\ & X0 X2 = X2) \Rightarrow (v3_pre_topc X2 X0)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc \\ & X0))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. \\ & (m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow ((m1_connsp_2 \\ & X2 X0 X1) \Leftrightarrow (X1 \in k1_tops_1 X0 X2)))) \end{aligned} \tag{2}$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc \\ & X0))) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 \\ & X0))) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (((v3_pre_topc \\ & X1 X0) \wedge (X2 \in X1)) \Rightarrow (m1_connsp_2 X1 X0 X2)))) \end{aligned}$$