

t48_tsep_1

(TMGo72hF2URAiHsZ9wnx7nrYP7edsZMNnFw)

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 $v4_pre_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r2_tsep_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3_pre_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_connsp_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k7_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(l1_pre_topc X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 \\ & \quad (u1_struct_0 X0))) \Rightarrow (\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 \\ & \quad (u1_struct_0 X0))) \Rightarrow (((v4_pre_topc X1 X0) \wedge (v4_pre_topc X2 X0)) \vee \\ & ((v3_pre_topc X1 X0) \wedge (v3_pre_topc X2 X0))) \Rightarrow (r1_connsp_1 X0 (k7_subset_1 \\ & \quad (u1_struct_0 X0) X1 X2) (k7_subset_1 (u1_struct_0 X0) X2 X1)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.(l1_pre_topc X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 \\ & \quad (u1_struct_0 X0))) \Rightarrow (\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 \\ & \quad (u1_struct_0 X0))) \Rightarrow ((r2_tsep_1 X0 X1 X2) \Leftrightarrow (r1_connsp_1 X0 (k7_subset_1 \\ & \quad (u1_struct_0 X0) X1 X2) (k7_subset_1 (u1_struct_0 X0) X2 X1)))))) \end{aligned} \quad (2)$$

Theorem 1

$$\begin{aligned} & \forall X0.((v2_pre_topc X0) \wedge (l1_pre_topc X0)) \Rightarrow (\forall X1. \\ & \quad (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow (\forall X2. \\ & \quad (m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow (((v4_pre_topc \\ & \quad X1 X0) \wedge (v4_pre_topc X2 X0)) \Rightarrow (r2_tsep_1 X0 X1 X2)))) \end{aligned}$$