

t26_tsep_2

(TMGmjWriDtjBppN9KRi7genATtpcFDfQK4B)

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 $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $m1_pre_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k9_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_connsp_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0.((v2_pre_topc X0) \wedge (l1_pre_topc X0)) \Rightarrow (\forall X1. \\
 & (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow (\forall X2. \\
 & (m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow (\forall X3. \\
 & (m1_subset_1 X3 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow ((r1_connsp_1 \\
 & X0 X1 X2) \Rightarrow (r1_connsp_1 X0 (k9_subset_1 (u1_struct_0 X0) X1 X3) (\\
 & k9_subset_1 (u1_struct_0 X0) X2 X3))))))
 \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
 & \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc \\
 & X0))) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 \\
 & X0))) \Rightarrow (\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 \\
 & X0))) \Rightarrow (\forall X3.((\neg v2_struct_0 X3) \wedge (m1_pre_topc X3 X0)) \Rightarrow (\\
 & \forall X4.(m1_subset_1 X4 (k1_zfmisc_1 (u1_struct_0 X3))) \Rightarrow (\\
 & \forall X5.(m1_subset_1 X5 (k1_zfmisc_1 (u1_struct_0 X3))) \Rightarrow (\\
 & ((X4 = X1) \wedge (X5 = X2)) \Rightarrow ((r1_connsp_1 X0 X1 X2) \Leftrightarrow (r1_connsp_1 X3 X4 \\
 & X5))))))
 \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned}
 & \forall X0.(l1_pre_topc X0) \Rightarrow (\forall X1.(m1_pre_topc X1 X0) \Rightarrow \\
 & (m1_subset_1 (u1_struct_0 X1) (k1_zfmisc_1 (u1_struct_0 X0))))
 \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned}
 & \forall X0. \forall X1. \forall X2. (m1_subset_1 X2 (k1_zfmisc_1 \\
 & X0)) \Rightarrow (m1_subset_1 (k9_subset_1 X0 X1 X2) (k1_zfmisc_1 X0))
 \end{aligned} \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 X0))\Rightarrow(k9_subset_1 X0 X1 X2 = k9_subset_1 X0 X2 X1) \quad (5)$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0)\wedge((v2_pre_topc X0)\wedge(l1_pre_topc X0)))\Rightarrow(\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0)))\Rightarrow(\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 X0)))\Rightarrow(\forall X3.((\neg v2_struct_0 X3)\wedge(m1_pre_topc X3 X0))\Rightarrow(\\ & \forall X4.(m1_subset_1 X4 (k1_zfmisc_1 (u1_struct_0 X3)))\Rightarrow(\\ & \forall X5.(m1_subset_1 X5 (k1_zfmisc_1 (u1_struct_0 X3)))\Rightarrow(\\ & ((X4 = k9_subset_1 (u1_struct_0 X0) (u1_struct_0 X3) X1)\wedge((X5 = k9_subset_1 (u1_struct_0 X0) (u1_struct_0 X3) X2)\wedge(r1_connsp_1 X0 X1 X2)))\Rightarrow(r1_connsp_1 X3 X4 X5)))))) \end{aligned}$$