

t34_pre_topc
(TMYE9Eo4yf5YbhbnYjgkUdMgYJKDpr5rxGG)

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Let $v2_pre_topc : \iota \Rightarrow o$ be given. Let $l1_pre_topc : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $g1_pre_topc : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_pre_topc : \iota \Rightarrow \iota$ be given. Let $v5_pre_topc : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_pre_topc : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
& \forall X0.((v2_pre_topc X0) \wedge (l1_pre_topc X0)) \Rightarrow (\forall X1. \\
& ((v2_pre_topc X1) \wedge (l1_pre_topc X1)) \Rightarrow (\forall X2.((v1_funct_1 \\
& X2) \wedge ((v1_funct_2 X2 (u1_struct_0 X0) (u1_struct_0 X1)) \wedge (m1_subset_1 \\
& X2 (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X1)))))) \Rightarrow \\
& (\forall X3.((v1_funct_1 X3) \wedge ((v1_funct_2 X3 (u1_struct_0 X0) \\
& (u1_struct_0 (g1_pre_topc (u1_struct_0 X1) (u1_pre_topc X1)))))) \wedge \\
& (m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 \\
& (g1_pre_topc (u1_struct_0 X1) (u1_pre_topc X1))))))) \Rightarrow ((X2 = \\
& X3) \Rightarrow ((v5_pre_topc X2 X0 X1) \Leftrightarrow (v5_pre_topc X3 X0 (g1_pre_topc (u1_struct_0 \\
& X1) (u1_pre_topc X1))))))
\end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((v2_pre_topc X0) \wedge (l1_pre_topc X0)) \Rightarrow (\forall X1. \\
& ((v2_pre_topc X1) \wedge (l1_pre_topc X1)) \Rightarrow (\forall X2.((v1_funct_1 \\
& X2) \wedge ((v1_funct_2 X2 (u1_struct_0 X0) (u1_struct_0 X1)) \wedge (m1_subset_1 \\
& X2 (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X1)))))) \Rightarrow \\
& (\forall X3.((v1_funct_1 X3) \wedge ((v1_funct_2 X3 (u1_struct_0 (g1_pre_topc \\
& (u1_struct_0 X0) (u1_pre_topc X0))) (u1_struct_0 X1)) \wedge (m1_subset_1 \\
& X3 (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 (g1_pre_topc (u1_struct_0 \\
& X0) (u1_pre_topc X0))) (u1_struct_0 X1)))))) \Rightarrow ((X2 = X3) \Rightarrow ((v5_pre_topc \\
& X2 X0 X1) \Leftrightarrow (v5_pre_topc X3 (g1_pre_topc (u1_struct_0 X0) (u1_pre_topc \\
& X0)) X1))))
\end{aligned} \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (k1_zfmisc_1 X0)))\Rightarrow(\forall X2.\forall X3.(g1_pre_topc X0 X1 = g1_pre_topc X2 X3)\Rightarrow((X0 = X2)\wedge(X1 = X3))) \quad (3)$$

Assume the following.

$$\forall X0.((v2_pre_topc X0)\wedge(l1_pre_topc X0))\Rightarrow((v1_pre_topc (g1_pre_topc (u1_struct_0 X0) (u1_pre_topc X0)))\wedge(v2_pre_topc (g1_pre_topc (u1_struct_0 X0) (u1_pre_topc X0)))) \quad (4)$$

Assume the following.

$$\forall X0.(l1_pre_topc X0)\Rightarrow(m1_subset_1 (u1_pre_topc X0) (k1_zfmisc_1 (k1_zfmisc_1 (u1_struct_0 X0)))) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (k1_zfmisc_1 X0)))\Rightarrow((v1_pre_topc (g1_pre_topc X0 X1))\wedge(l1_pre_topc (g1_pre_topc X0 X1))) \quad (6)$$

Assume the following.

$$\forall X0.(l1_pre_topc X0)\Rightarrow((v1_pre_topc X0)\Rightarrow(X0 = g1_pre_topc (u1_struct_0 X0) (u1_pre_topc X0))) \quad (7)$$

Theorem 1

$$\begin{aligned} & \forall X0.((v2_pre_topc X0)\wedge(l1_pre_topc X0))\Rightarrow(\forall X1. \\ & ((v2_pre_topc X1)\wedge(l1_pre_topc X1))\Rightarrow(\forall X2.((v1_funct_1 X2)\wedge((v1_funct_2 X2 (u1_struct_0 X0) (u1_struct_0 X1))\wedge(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X1))))))\Rightarrow \\ & (\forall X3.((v1_funct_1 X3)\wedge((v1_funct_2 X3 (u1_struct_0 (g1_pre_topc (u1_struct_0 X0) (u1_pre_topc X0))) (u1_struct_0 (g1_pre_topc (u1_struct_0 X1) (u1_pre_topc X1))))\wedge(m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 (g1_pre_topc (u1_struct_0 X0) (u1_pre_topc X0))) (u1_struct_0 (g1_pre_topc (u1_struct_0 X1) (u1_pre_topc X1))))))\Rightarrow((X2 = X3)\Rightarrow((v5_pre_topc X2 X0 X1)\Leftrightarrow(v5_pre_topc X3 (g1_pre_topc (u1_struct_0 X0) (u1_pre_topc X0)) (g1_pre_topc (u1_struct_0 X1) (u1_pre_topc X1)))))))))) \end{aligned}$$