

t33_pre_topc (TMLNEPasmukF- PcgSU6bJV1G3eMDXswdqHJe)

October 27, 2020

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 $v4_pre_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k8_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_pre_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((v2_pre_topc X0) \wedge (l1_pre_topc X0)) \Rightarrow (\forall X1. \\ & ((v4_pre_topc X1 X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 \\ & X0)))) \Leftrightarrow ((v4_pre_topc X1 (g1_pre_topc (u1_struct_0 X0) (u1_pre_topc \\ & X0))) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 (g1_pre_topc \\ & (u1_struct_0 X0) (u1_pre_topc X0)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. (m1_subset_1 X2 (\\ & k1_zfmisc_1 (k2_zfmisc_1 X0 X1))) \Rightarrow (k8_relset_1 X0 X1 X2 X3 = k8_relat_1 \\ & X2 X3) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. (l1_pre_topc X0) \Rightarrow (m1_pre_topc (g1_pre_topc (u1_struct_0 \\ & X0) (u1_pre_topc X0)) X0) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0. (l1_pre_topc X0) \Rightarrow (\forall X1. (m1_pre_topc X1 X0) \Rightarrow \\ & (l1_pre_topc X1)) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned}
& \forall X0.(l1_pre_topc\ X0) \Rightarrow (\forall X1.(l1_pre_topc\ X1) \Rightarrow (\forall X2. \\
& ((v1_funct_1\ X2) \wedge ((v1_funct_2\ X2\ (u1_struct_0\ X0)\ (u1_struct_0 \\
& X1)) \wedge (m1_subset_1\ X2\ (k1_zfmisc_1\ (k2_zfmisc_1\ (u1_struct_0 \\
& X0)\ (u1_struct_0\ X1)))))) \Rightarrow ((v5_pre_topc\ X2\ X0\ X1) \Leftrightarrow (\forall X3. \\
& (m1_subset_1\ X3\ (k1_zfmisc_1\ (u1_struct_0\ X1))) \Rightarrow ((v4_pre_topc \\
& X3\ X1) \Rightarrow (v4_pre_topc\ (k8_relset_1\ (u1_struct_0\ X0)\ (u1_struct_0 \\
& X1)\ X2\ X3)\ X0))))))
\end{aligned} \tag{5}$$

Theorem 1

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