

t13_jordan24 (TMKkVnm-
rMa6Y6zBTWKS1BB3zgQx93aza7x9)

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 $v1_funct_1 : \iota \Rightarrow o$ 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 $v5_pre_topc : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_pre_topc : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc \\
 & X0))) \Rightarrow (\forall X1.((\neg v2_struct_0 X1) \wedge ((v2_pre_topc X1) \wedge (l1_pre_topc \\
 & X1))) \Rightarrow (\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 \\
 & X0))) \Rightarrow (\forall X3.(m1_subset_1 X3 (k1_zfmisc_1 (u1_struct_0 \\
 & X1)))) \Rightarrow (\forall X4.((v1_funct_1 X4) \wedge ((v1_funct_2 X4 (u1_struct_0 \\
 & X0) (u1_struct_0 X1)) \wedge ((v5_pre_topc X4 X0 X1) \wedge (m1_subset_1 X4 \\
 & (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X1)))))) \Rightarrow \\
 & (\forall X5.((v1_funct_1 X5) \wedge ((v1_funct_2 X5 (u1_struct_0 (k1_pre_topc \\
 & X0 X2)) (u1_struct_0 (k1_pre_topc X1 X3))) \wedge (m1_subset_1 X5 (k1_zfmisc_1 \\
 & (k2_zfmisc_1 (u1_struct_0 (k1_pre_topc X0 X2)) (u1_struct_0 (\\
 & k1_pre_topc X1 X3)))))) \Rightarrow ((X5 = k2_partfun1 (u1_struct_0 X0) (\\
 & u1_struct_0 X1) X4 X2) \Rightarrow (v5_pre_topc X5 (k1_pre_topc X0 X2) (k1_pre_topc \\
 & X1 X3))))))
 \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. \forall X3. (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1))) \Rightarrow (m1_subset_1 (k7_relset_1 X0 X1 X2 X3) (k1_zfmisc_1 X1)) \tag{2}$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc \\ & X0))) \Rightarrow (\forall X1.((\neg v2_struct_0 X1) \wedge ((v2_pre_topc X1) \wedge (l1_pre_topc \\ & X1)))) \Rightarrow (\forall X2.((v1_funct_1 X2) \wedge ((v1_funct_2 X2 (u1_struct_0 \\ & X0) (u1_struct_0 X1)) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 \\ & (u1_struct_0 X0) (u1_struct_0 X1)))))) \Rightarrow ((v5_pre_topc X2 X0 X1) \Rightarrow \\ & (\forall X3.(m1_subset_1 X3 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow \\ & (\forall X4.((v1_funct_1 X4) \wedge ((v1_funct_2 X4 (u1_struct_0 (k1_pre_topc \\ & X0 X3)) (u1_struct_0 (k1_pre_topc X1 (k7_relset_1 (u1_struct_0 \\ & X0) (u1_struct_0 X1) X2 X3)))) \wedge (m1_subset_1 X4 (k1_zfmisc_1 (k2_zfmisc_1 \\ & (u1_struct_0 (k1_pre_topc X0 X3)) (u1_struct_0 (k1_pre_topc X1 \\ & (k7_relset_1 (u1_struct_0 X0) (u1_struct_0 X1) X2 X3)))))))))) \Rightarrow \\ & ((X4 = k2_partfun1 (u1_struct_0 X0) (u1_struct_0 X1) X2 X3) \Rightarrow (v5_pre_topc \\ & X4 (k1_pre_topc X0 X3) (k1_pre_topc X1 (k7_relset_1 (u1_struct_0 \\ & X0) (u1_struct_0 X1) X2 X3)))))) \end{aligned}$$