

t50_tops_2

(TMTZfNyw2SjgHHSZwmBWYdoHH2JbwBftN7n)

October 27, 2020

Let $l1_struct.0 : \iota \Rightarrow o$ 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 $k2_relset.1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_struct.0 : \iota \Rightarrow \iota$ be given. Let $v2_funct.1 : \iota \Rightarrow o$ be given. Let $k2_tops.2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_relat.1 : \iota \Rightarrow o$ be given. Let $k2_funct.1 : \iota \Rightarrow \iota$ be given. Let $v3_funct.2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v5_relat.1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2_funct.2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v4_relat.1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0.((v1_relat.1 X0) \wedge ((v1_funct.1 X0) \wedge (v2_funct.1 X0))) \Rightarrow \\ ((v1_relat.1 (k2_funct.1 X0)) \wedge ((v1_funct.1 (k2_funct.1 X0)) \wedge \\ (v2_funct.1 (k2_funct.1 X0)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. \forall X2. ((v1_funct.1 X2) \wedge ((v1_funct.2 \\ X2 X0 X1) \wedge (m1_subset.1 X2 (k1_zfmisc.1 (k2_zfmisc.1 X0 X1)))))) \Rightarrow \\ ((v3_funct.2 X2 X0 X1) \Rightarrow (k2_tops.2 X0 X1 X2 = k2_funct.1 X2)) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0. (l1_struct.0 X0) \Rightarrow (k2_struct.0 X0 = u1_struct.0 X0) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. ((v1_relat.1 X1) \wedge (v5_relat.1 X1 X0)) \Rightarrow (\\ (v2_funct.2 X1 X0) \Leftrightarrow (k2_relset.1 X0 X1 = X0)) \quad (4)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. \forall X2. (m1_subset.1 X2 (k1_zfmisc.1 \\ (k2_zfmisc.1 X0 X1))) \Rightarrow (((v1_funct.1 X2) \wedge ((v2_funct.1 X2) \wedge (v2_funct.2 \\ X2 X1))) \Rightarrow ((v1_funct.1 X2) \wedge (v3_funct.2 X2 X0 X1))) \end{aligned} \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))\Rightarrow((v4_relat_1 X2 X0)\wedge(v5_relat_1 X2 X1)) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))\Rightarrow(v1_relat_1 X2) \quad (7)$$

Theorem 1

$$\begin{aligned} & \forall X0.(l1_struct_0 X0)\Rightarrow(\forall X1.(l1_struct_0 X1)\Rightarrow(\forall X2. \\ & ((v1_funct_1 X2)\wedge((v1_funct_2 X2 (u1_struct_0 X0) (u1_struct_0 \\ & X1))\wedge(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 \\ & X0) (u1_struct_0 X1))))))\Rightarrow(((k2_relset_1 (u1_struct_0 X1) X2 = \\ & k2_struct_0 X1)\wedge(v2_funct_1 X2))\Rightarrow(v2_funct_1 (k2_tops_2 (u1_struct_0 \\ & X0) (u1_struct_0 X1) X2)))))) \end{aligned}$$