

t17_msuhom_1

(TMJzeR7ovF3pLuwfkPE1dFTcDDtkwS7EW8d)

October 27, 2020

Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v2_unialg_1 : \iota \Rightarrow o$ be given. Let $v3_unialg_1 : \iota \Rightarrow o$ be given. Let $v4_unialg_1 : \iota \Rightarrow o$ be given. Let $l1_unialg_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow o$ 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 $r1_unialg_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $k2_msuhom_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $v1_partfun1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_msualg_1 : \iota \Rightarrow \iota$ be given. Let $k7_funcop_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_funcop_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k16_funcop_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} \forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_unialg_1 X0) \wedge ((v3_unialg_1 \\ X0) \wedge ((v4_unialg_1 X0) \wedge (l1_unialg_1 X0)))))) \Rightarrow (\forall X1. ((\neg \\ v2_struct_0 X1) \wedge ((v2_unialg_1 X1) \wedge ((v3_unialg_1 X1) \wedge ((v4_unialg_1 \\ X1) \wedge (l1_unialg_1 X1)))))) \Rightarrow ((r1_unialg_2 X0 X1) \Rightarrow (k6_msualg_1 \\ X0 = k6_msualg_1 X1))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0. \forall X1. k7_funcop_1 X0 X1 = k2_funcop_1 X0 X1 \tag{2}$$

Assume the following.

$$k6_numbers = k1_xboole_0 \tag{3}$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. (v1_relat_1 (k2_funcop_1 X0 X1)) \wedge ((v4_relat_1 \\ (k2_funcop_1 X0 X1) X0) \wedge ((v1_funct_1 (k2_funcop_1 X0 X1)) \wedge (v1_partfun1 \\ (k2_funcop_1 X0 X1) X0))) \end{aligned} \tag{4}$$

Assume the following.

$$\forall X0. \forall X1. v4_relat_1 (k16_funcop_1 X0 X1) (k1_tarski X0) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.(v1_relat_1 (k16_funcop_1 X0 X1))\wedge(v1_funct_1 (k16_funcop_1 X0 X1)) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.k16_funcop_1 X0 X1 = k7_funcop_1 (k1_tarski X0) X1 \quad (7)$$

Assume the following.

$$\begin{aligned} &\forall X0.((\neg v2_struct_0 X0)\wedge((v2_unialg_1 X0)\wedge((v3_unialg_1 \\ &\quad X0)\wedge((v4_unialg_1 X0)\wedge(l1_unialg_1 X0))))))\Rightarrow(\forall X1.((\neg \\ &\quad v2_struct_0 X1)\wedge((v2_unialg_1 X1)\wedge((v3_unialg_1 X1)\wedge((v4_unialg_1 \\ &\quad X1)\wedge(l1_unialg_1 X1))))))\Rightarrow(\forall X2.((v1_funct_1 X2)\wedge((v1_funct_2 \\ &\quad X2 (u1_struct_0 X0) (u1_struct_0 X1))\wedge(m1_subset_1 X2 (k1_zfmisc_1 \\ &\quad (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X1))))))\Rightarrow((k6_msualg_1 \\ &\quad X0 = k6_msualg_1 X1)\Rightarrow(k2_msuhom_1 X0 X1 X2 = k16_funcop_1 k6_numbers \\ &\quad X2)))) \quad (8) \end{aligned}$$

Theorem 1

$$\begin{aligned} &\forall X0.((\neg v2_struct_0 X0)\wedge((v2_unialg_1 X0)\wedge((v3_unialg_1 \\ &\quad X0)\wedge((v4_unialg_1 X0)\wedge(l1_unialg_1 X0))))))\Rightarrow(\forall X1.((\neg \\ &\quad v2_struct_0 X1)\wedge((v2_unialg_1 X1)\wedge((v3_unialg_1 X1)\wedge((v4_unialg_1 \\ &\quad X1)\wedge(l1_unialg_1 X1))))))\Rightarrow(\forall X2.((v1_funct_1 X2)\wedge((v1_funct_2 \\ &\quad X2 (u1_struct_0 X0) (u1_struct_0 X1))\wedge(m1_subset_1 X2 (k1_zfmisc_1 \\ &\quad (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X1))))))\Rightarrow((r1_unialg_2 \\ &\quad X0 X1)\Rightarrow((v1_relat_1 (k2_msuhom_1 X0 X1 X2))\wedge((v4_relat_1 (k2_msuhom_1 \\ &\quad X0 X1 X2) (k1_tarski k6_numbers))\wedge((v1_funct_1 (k2_msuhom_1 X0 \\ &\quad X1 X2))\wedge(v1_partfun1 (k2_msuhom_1 X0 X1 X2) (k1_tarski k6_numbers)))))))) \end{aligned}$$