

t18_msuhom_1 (TMRSfXCiWtWL-
RrT2Uxoyh788WkRsju9RN2e)

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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 $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ 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 $r3_alg_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r2_msualg_3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_msualg_1 : \iota \Rightarrow \iota$ be given. Let $k9_msualg_1 : \iota \Rightarrow \iota$ be given. Let $k1_msuhom_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_msuhom_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v11_struct_0 : \iota \Rightarrow o$ be given. Let $v1_msualg_1 : \iota \Rightarrow o$ be given. Let $l1_msualg_1 : \iota \Rightarrow o$ be given. Let $v3_msualg_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v4_msualg_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l3_msualg_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_funcop_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_alg_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_msualg_3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_unialg_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k7_funcop_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v5_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_partfun1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m2_pboole : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u4_struct_0 : \iota \Rightarrow \iota$ be given. Let $k3_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_msualg_1 : \iota \Rightarrow \iota$ be given. Let $k6_finseq_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u2_msualg_1 : \iota \Rightarrow \iota$ be given. Let $g3_msualg_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v7_struct_0 : \iota \Rightarrow o$ be given. Let $v13_struct_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np_1 : \iota$ be given. Let $v5_msualg_1 : \iota \Rightarrow o$ be given. Let $l5_struct_0 : \iota \Rightarrow o$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ be given. Let $k8_msualg_1 : \iota \Rightarrow \iota$ be given. Let $k7_msualg_1 : \iota \Rightarrow \iota$ be given. Let $v2_relat_1 : \iota \Rightarrow o$ be given. Let $u3_msualg_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k16_funcop_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $v2_msualg_3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k1_unialg_1 : \iota \Rightarrow \iota$ be given. Let $k1_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_numbers : \iota$ be given. Let $k3_finseq_2 : \iota \Rightarrow \iota$ be given. Let $k7_finseq_2 : \iota \Rightarrow \iota$ be given. Let $k1_margrel1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_unialg_1 : \iota \Rightarrow \iota$ be given. Let $m5_margrel1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_unialg_2 : \iota \Rightarrow \iota$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_finseqop : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u4_msualg_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $g1_msualg_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given.

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0) \wedge ((\neg v11_struct_0 X0) \wedge ((v1_msualg_1 X0) \wedge (l1_msualg_1 X0)))) \Rightarrow (\forall X1.((v3_msualg_1 X1 X0) \wedge (v4_msualg_1 X1 X0) \wedge (l3_msualg_1 X1 X0))) \Rightarrow (X1 = k1_msuhom_1 X0 X0 X1)) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (X1 \in X0) \Rightarrow (k1_funct_1 (k2_funcop_1 X0 X2) X1 = X2) \quad (2)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0) \wedge ((v2_unialg_1 X0) \wedge ((v3_unialg_1 X0) \wedge ((v4_unialg_1 X0) \wedge (l1_unialg_1 X0)))))) \Rightarrow (\forall X1.((\neg v2_struct_0 X1) \wedge ((v2_unialg_1 X1) \wedge ((v3_unialg_1 X1) \wedge ((v4_unialg_1 X1) \wedge (l1_unialg_1 X1)))))) \Rightarrow (\forall X2.((v1_funct_1 X2) \wedge ((v1_funct_2 X2 (u1_struct_0 X0) (u1_struct_0 X1)) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X1)))))) \Rightarrow ((r1_alg_1 X0 X1 X2) \Rightarrow (r1_msualg_3 (k6_msualg_1 X0) (k9_msualg_1 X0) (k1_msuhom_1 (k6_msualg_1 X0) (k6_msualg_1 X1) (k9_msualg_1 X1)) (k2_msuhom_1 X0 X1 X2)))))) \quad (3)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0) \wedge ((v2_unialg_1 X0) \wedge ((v3_unialg_1 X0) \wedge ((v4_unialg_1 X0) \wedge (l1_unialg_1 X0)))))) \Rightarrow (\forall X1.((\neg v2_struct_0 X1) \wedge ((v2_unialg_1 X1) \wedge ((v3_unialg_1 X1) \wedge ((v4_unialg_1 X1) \wedge (l1_unialg_1 X1)))))) \Rightarrow ((r1_unialg_2 X0 X1) \Rightarrow (k6_msualg_1 X0 = k6_msualg_1 X1)) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. k7_funcop_1 X0 X1 = k2_funcop_1 X0 X1 \quad (5)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (6)$$

Assume the following.

$$\forall X0. \forall X1. ((v1_relat_1 X1) \wedge (v5_relat_1 X1 X0)) \Rightarrow (k2_rerset_1 X0 X1 = k10_xtuple_0 X1) \quad (7)$$

Assume the following.

$$\begin{aligned}
& \forall X0.\forall X1.\forall X2.(((\neg v2_struct_0 X0)\wedge(l1_msualg_1 \\
& X0))\wedge(((v1_relat_1 X1)\wedge((v4_relat_1 X1 (u1_struct_0 X0))\wedge((\\
& v1_funct_1 X1)\wedge(v1_partfun1 X1 (u1_struct_0 X0))))))\wedge(m2_pboole \\
& X2 (u4_struct_0 X0) (k3_relat_1 (u1_msualg_1 X0) (k6_finseq_2 \\
& (u1_struct_0 X0) X1)) (k3_relat_1 (u2_msualg_1 X0) X1))))\Rightarrow(\forall X3. \\
& \forall X4.\forall X5.(g3_msualg_1 X0 X1 X2 = g3_msualg_1 X3 X4 X5)\Rightarrow \\
& ((X0 = X3)\wedge((X1 = X4)\wedge(X2 = X5))))
\end{aligned} \tag{8}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0)\wedge((v2_unialg_1 X0)\wedge((v3_unialg_1 \\
& X0)\wedge((v4_unialg_1 X0)\wedge(l1_unialg_1 X0))))))\Rightarrow((v3_msualg_1 (\\
& k9_msualg_1 X0) (k6_msualg_1 X0))\wedge(v4_msualg_1 (k9_msualg_1 \\
& X0) (k6_msualg_1 X0)))
\end{aligned} \tag{9}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0)\wedge((v2_unialg_1 X0)\wedge((v3_unialg_1 \\
& X0)\wedge((v4_unialg_1 X0)\wedge(l1_unialg_1 X0))))))\Rightarrow((v7_struct_0 (\\
& k6_msualg_1 X0))\wedge((\neg v11_struct_0 (k6_msualg_1 X0))\wedge((v13_struct_0 \\
& (k6_msualg_1 X0) np_1)\wedge((v1_msualg_1 (k6_msualg_1 X0))\wedge(v5_msualg_1 \\
& (k6_msualg_1 X0))))))
\end{aligned} \tag{10}$$

Assume the following.

$$\forall X0.(l5_struct_0 X0)\Rightarrow(l1_struct_0 X0) \tag{11}$$

Assume the following.

$$\forall X0.(l1_msualg_1 X0)\Rightarrow(l5_struct_0 X0) \tag{12}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0)\wedge((v2_unialg_1 X0)\wedge((v3_unialg_1 \\
& X0)\wedge((v4_unialg_1 X0)\wedge(l1_unialg_1 X0))))))\Rightarrow((v3_msualg_1 (\\
& k9_msualg_1 X0) (k6_msualg_1 X0))\wedge(l3_msualg_1 (k9_msualg_1 \\
& X0) (k6_msualg_1 X0)))
\end{aligned} \tag{13}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0)\wedge((v2_unialg_1 X0)\wedge((v3_unialg_1 \\
& X0)\wedge((v4_unialg_1 X0)\wedge(l1_unialg_1 X0))))))\Rightarrow(m2_pboole (k8_msualg_1 \\
& X0) (u4_struct_0 (k6_msualg_1 X0)) (k3_relat_1 (u1_msualg_1 (\\
& k6_msualg_1 X0) (k6_finseq_2 (u1_struct_0 (k6_msualg_1 X0)) \\
& (k7_msualg_1 X0))) (k3_relat_1 (u2_msualg_1 (k6_msualg_1 X0)) \\
& (k7_msualg_1 X0)))
\end{aligned} \tag{14}$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0) \wedge ((v2_unialg_1 X0) \wedge ((v3_unialg_1 X0) \wedge ((v4_unialg_1 X0) \wedge (l1_unialg_1 X0)))))) \Rightarrow ((v1_relat_1 (k7_msualg_1 X0)) \wedge ((v2_relat_1 (k7_msualg_1 X0)) \wedge ((v4_relat_1 (k7_msualg_1 X0) (u1_struct_0 (k6_msualg_1 X0))) \wedge ((v1_funct_1 (k7_msualg_1 X0)) \wedge (v1_partfun1 (k7_msualg_1 X0) (u1_struct_0 (k6_msualg_1 X0)))))))))) \quad (15)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0) \wedge ((v2_unialg_1 X0) \wedge ((v3_unialg_1 X0) \wedge ((v4_unialg_1 X0) \wedge (l1_unialg_1 X0)))))) \Rightarrow ((v7_struct_0 (k6_msualg_1 X0)) \wedge ((\neg v11_struct_0 (k6_msualg_1 X0)) \wedge ((v1_msualg_1 (k6_msualg_1 X0)) \wedge ((v5_msualg_1 (k6_msualg_1 X0)) \wedge (l1_msualg_1 (k6_msualg_1 X0))))))) \quad (16)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (((\neg v2_struct_0 X0) \wedge ((v2_unialg_1 X0) \wedge ((v3_unialg_1 X0) \wedge ((v4_unialg_1 X0) \wedge (l1_unialg_1 X0)))))) \wedge (((\neg v2_struct_0 X1) \wedge ((v2_unialg_1 X1) \wedge ((v3_unialg_1 X1) \wedge ((v4_unialg_1 X1) \wedge (l1_unialg_1 X1)))))) \wedge ((v1_funct_1 X2) \wedge ((v1_funct_2 X2 (u1_struct_0 X0) (u1_struct_0 X1)) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X1)))))))))) \Rightarrow (m2_pboole (k2_msuhom_1 X0 X1 X2) (u1_struct_0 (k6_msualg_1 X0)) (u3_msualg_1 (k6_msualg_1 X0) (k9_msualg_1 X0)) (u3_msualg_1 (k6_msualg_1 X0) X0) (k1_msuhom_1 (k6_msualg_1 X0) (k6_msualg_1 X1) (k9_msualg_1 X1)))) \quad (17)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0) \wedge ((v2_unialg_1 X0) \wedge ((v3_unialg_1 X0) \wedge ((v4_unialg_1 X0) \wedge (l1_unialg_1 X0)))))) \Rightarrow (k7_msualg_1 X0 = k16_funcop_1 k6_numbers (u1_struct_0 X0)) \quad (18)$$

Assume the following.

$$\forall X0. \forall X1. k16_funcop_1 X0 X1 = k7_funcop_1 (k1_tarski X0) X1 \quad (19)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0) \wedge ((\neg v11_struct_0 X0) \wedge (l1_msualg_1 X0))) \Rightarrow (\forall X1. (l3_msualg_1 X1 X0) \Rightarrow (\forall X2. (l3_msualg_1 X2 X0) \Rightarrow (\forall X3. (m2_pboole X3 (u1_struct_0 X0) (u3_msualg_1 X0 X1) (u3_msualg_1 X0 X2)) \Rightarrow ((r2_msualg_3 X0 X1 X2 X3) \Leftrightarrow ((r1_msualg_3 X0 X1 X2 X3) \wedge (v2_msualg_3 X3 (u1_struct_0 X0) (u3_msualg_1 X0 X1) (u3_msualg_1 X0 X2))))))) \quad (20)$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_unialg_1 X0) \wedge ((v3_unialg_1 \\
& X0) \wedge ((v4_unialg_1 X0) \wedge (l1_unialg_1 X0)))))) \Rightarrow (\forall X1.((v7_struct_0 \\
& X1) \wedge ((\neg v11_struct_0 X1) \wedge ((v1_msualg_1 X1) \wedge ((v5_msualg_1 X1) \wedge \\
& (l1_msualg_1 X1)))))) \Rightarrow ((X1 = k6_msualg_1 X0) \Leftrightarrow ((u1_struct_0 X1 = \\
& k1_tarski k6_numbers) \wedge ((u4_struct_0 X1 = k4_finseq_1 (k1_unialg_1 \\
& X0)) \wedge ((u1_msualg_1 X1 = k1_partfun1 k5_numbers k5_numbers k5_numbers \\
& (k3_finseq_2 (k1_tarski k6_numbers)) (k1_unialg_1 X0) (k7_finseq_2 \\
& k6_numbers)) \wedge (u2_msualg_1 X1 = k1_margrel1 k5_numbers (k4_finseq_1 \\
& (k1_unialg_1 X0) k6_numbers))))))
\end{aligned} \tag{21}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_unialg_1 X0) \wedge ((v3_unialg_1 \\
& X0) \wedge ((v4_unialg_1 X0) \wedge (l1_unialg_1 X0)))))) \Rightarrow (\forall X1.((\neg \\
& v2_struct_0 X1) \wedge ((v2_unialg_1 X1) \wedge ((v3_unialg_1 X1) \wedge ((v4_unialg_1 \\
& X1) \wedge (l1_unialg_1 X1)))))) \Rightarrow (\forall X2.((v1_funct_1 X2) \wedge ((v1_funct_2 \\
& X2 (u1_struct_0 X0) (u1_struct_0 X1)) \wedge (m1_subset_1 X2 (k1_zfmisc_1 \\
& (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X1)))))) \Rightarrow ((k6_msualg_1 \\
& X0 = k6_msualg_1 X1) \Rightarrow (k2_msuhom_1 X0 X1 X2 = k16_funcop_1 k6_numbers \\
& X2)))
\end{aligned} \tag{22}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. ((v1_relat_1 X1) \wedge ((v4_relat_1 X1 X0) \wedge (\\
& (v1_funct_1 X1) \wedge (v1_partfun1 X1 X0)))) \Rightarrow (\forall X2. ((v1_relat_1 \\
& X2) \wedge ((v4_relat_1 X2 X0) \wedge ((v1_funct_1 X2) \wedge (v1_partfun1 X2 X0)))) \Rightarrow \\
& (\forall X3. (m2_pboole X3 X0 X1 X2) \Rightarrow ((v2_msualg_3 X3 X0 X1 X2) \Leftrightarrow (\\
& \forall X4. (X4 \in X0) \Rightarrow (k10_xtuple_0 (k1_funct_1 X3 X4) = k1_funct_1 \\
& X2 X4))))))
\end{aligned} \tag{23}$$

Assume the following.

$$\begin{aligned}
& \forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_unialg_1 X0) \wedge ((v3_unialg_1 \\
& X0) \wedge ((v4_unialg_1 X0) \wedge (l1_unialg_1 X0)))))) \Rightarrow (\forall X1. ((\neg \\
& v2_struct_0 X1) \wedge ((v2_unialg_1 X1) \wedge ((v3_unialg_1 X1) \wedge ((v4_unialg_1 \\
& X1) \wedge (l1_unialg_1 X1)))))) \Rightarrow (\forall X2. ((v1_funct_1 X2) \wedge ((v1_funct_2 \\
& X2 (u1_struct_0 X0) (u1_struct_0 X1)) \wedge (m1_subset_1 X2 (k1_zfmisc_1 \\
& (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X1)))))) \Rightarrow ((r3_alg_1 \\
& X0 X1 X2) \Leftrightarrow ((r1_alg_1 X0 X1 X2) \wedge (k2_relset_1 (u1_struct_0 X1) X2 = \\
& u1_struct_0 X1))))))
\end{aligned} \tag{24}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_unialg_1 X0) \wedge ((v3_unialg_1 \\
& \quad X0) \wedge ((v4_unialg_1 X0) \wedge (l1_unialg_1 X0)))))) \Rightarrow (\forall X1.((\neg \\
& \quad v2_struct_0 X1) \wedge ((v2_unialg_1 X1) \wedge ((v3_unialg_1 X1) \wedge ((v4_unialg_1 \\
& \quad X1) \wedge (l1_unialg_1 X1)))))) \Rightarrow (\forall X2.((v1_funct_1 X2) \wedge ((v1_funct_2 \\
& \quad X2 (u1_struct_0 X0) (u1_struct_0 X1)) \wedge (m1_subset_1 X2 (k1_zfmisc_1 \\
& \quad (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X1)))))) \Rightarrow ((r1_alg_1 \\
& \quad X0 X1 X2) \Leftrightarrow ((r1_unialg_2 X0 X1) \wedge (\forall X3.(m1_subset_1 X3 k5_numbers) \Rightarrow \\
& \quad ((X3 \in k4_finseq_1 (u1_unialg_1 X0)) \Rightarrow (\forall X4.(m5_margrel1 \\
& \quad X4 (u1_struct_0 X0) (k1_unialg_2 X0)) \Rightarrow (\forall X5.(m5_margrel1 \\
& \quad X5 (u1_struct_0 X1) (k1_unialg_2 X1)) \Rightarrow (((X4 = k1_funct_1 (u1_unialg_1 \\
& \quad X0) X3) \wedge (X5 = k1_funct_1 (u1_unialg_1 X1) X3)) \Rightarrow (\forall X6.(m2_finseq_1 \\
& \quad X6 (u1_struct_0 X0)) \Rightarrow ((X6 \in k1_relset_1 (k3_finseq_2 (u1_struct_0 \\
& \quad X0)) X4) \Rightarrow (k1_funct_1 X2 (k1_funct_1 X4 X6) = k1_funct_1 X5 (k4_finseqop \\
& \quad (u1_struct_0 X0) (u1_struct_0 X1) X6 X2))))))))))
\end{aligned} \tag{25}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_unialg_1 X0) \wedge ((v3_unialg_1 \\
& \quad X0) \wedge ((v4_unialg_1 X0) \wedge (l1_unialg_1 X0)))))) \Rightarrow (k9_msualg_1 X0 = \\
& \quad g3_msualg_1 (k6_msualg_1 X0) (k7_msualg_1 X0) (k8_msualg_1 X0))
\end{aligned} \tag{26}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. \forall X2. (m1_subset_1 X2 (k1_zfmisc_1 \\
& \quad (k2_zfmisc_1 X0 X1))) \Rightarrow ((v4_relat_1 X2 X0) \wedge (v5_relat_1 X2 X1))
\end{aligned} \tag{27}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. \forall X2. (m1_subset_1 X2 (k1_zfmisc_1 \\
& \quad (k2_zfmisc_1 X0 X1))) \Rightarrow (v1_relat_1 X2)
\end{aligned} \tag{28}$$

Assume the following.

$$\begin{aligned}
& \forall X0. (l1_struct_0 X0) \Rightarrow ((v13_struct_0 X0 np_1) \Rightarrow ((\neg v2_struct_0 \\
& \quad X0) \wedge (v7_struct_0 X0)))
\end{aligned} \tag{29}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. (((\neg v2_struct_0 X0) \wedge (l1_msualg_1 X0)) \wedge \\
& \quad (l3_msualg_1 X1 X0)) \Rightarrow ((v3_msualg_1 X1 X0) \Rightarrow (X1 = g3_msualg_1 X0 \\
& \quad (u3_msualg_1 X0 X1) (u4_msualg_1 X0 X1)))
\end{aligned} \tag{30}$$

Assume the following.

$$\begin{aligned}
& \forall X0. (l1_msualg_1 X0) \Rightarrow ((v1_msualg_1 X0) \Rightarrow (X0 = g1_msualg_1 \\
& \quad (u1_struct_0 X0) (u4_struct_0 X0) (u1_msualg_1 X0) (u2_msualg_1 \\
& \quad X0)))
\end{aligned} \tag{31}$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_unialg_1 X0) \wedge ((v3_unialg_1 \\ & \quad X0) \wedge ((v4_unialg_1 X0) \wedge (l1_unialg_1 X0)))))) \Rightarrow (\forall X1.((\neg \\ & \quad v2_struct_0 X1) \wedge ((v2_unialg_1 X1) \wedge ((v3_unialg_1 X1) \wedge ((v4_unialg_1 \\ & \quad X1) \wedge (l1_unialg_1 X1)))))) \Rightarrow (\forall X2.((v1_funct_1 X2) \wedge ((v1_funct_2 \\ & \quad X2 (u1_struct_0 X0) (u1_struct_0 X1)) \wedge (m1_subset_1 X2 (k1_zfmisc_1 \\ & \quad (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X1)))))) \Rightarrow ((r3_alg_1 \\ X0 X1 X2) \Rightarrow (r2_msualg_3 (k6_msualg_1 X0) (k9_msualg_1 X0) (k1_msuhom_1 \\ & \quad (k6_msualg_1 X0) (k6_msualg_1 X1) (k9_msualg_1 X1)) (k2_msuhom_1 \\ & \quad X0 X1 X2)))))) \end{aligned}$$