

t19_msualg_6

(TMH4a73ZFi66NGwpYaSqpbN3pMTbfzDfayJ)

October 27, 2020

Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v11_struct_0 : \iota \Rightarrow o$ be given. Let $l1_msualg_1 : \iota \Rightarrow o$ 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 $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $r1_rewrite1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_msualg_6 : \iota \Rightarrow \iota$ be given. Let $m2_msualg_6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $r1_msualg_6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u3_msualg_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0.((\neg v2_struct_0 X0) \wedge ((\neg v11_struct_0 X0) \wedge (l1_msualg_1 \\
 & X0))) \Rightarrow (\forall X1.((v4_msualg_1 X1 X0) \wedge (l3_msualg_1 X1 X0)) \Rightarrow \\
 & (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3.(m1_subset_1 \\
 & X3 (u1_struct_0 X0)) \Rightarrow (\forall X4.(m1_subset_1 X4 (u1_struct_0 \\
 & X0)) \Rightarrow (((r1_rewrite1 (k3_msualg_6 X0) X2 X3) \wedge (r1_rewrite1 (k3_msualg_6 \\
 & X0) X3 X4)) \Rightarrow (\forall X5.(m2_msualg_6 X5 X0 X1 X2 X3) \Rightarrow (\forall X6. \\
 & (m2_msualg_6 X6 X0 X1 X3 X4) \Rightarrow (m2_msualg_6 (k1_partfun1 (k1_funct_1 \\
 & (u3_msualg_1 X0 X1) X2) (k1_funct_1 (u3_msualg_1 X0 X1) X3) (k1_funct_1 \\
 & (u3_msualg_1 X0 X1) X3) (k1_funct_1 (u3_msualg_1 X0 X1) X4) X5 X6) \\
 & X0 X1 X2 X4))))))))))
 \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
 & \forall X0.((\neg v2_struct_0 X0) \wedge ((\neg v11_struct_0 X0) \wedge (l1_msualg_1 \\
 & X0))) \Rightarrow (\forall X1.((v4_msualg_1 X1 X0) \wedge (l3_msualg_1 X1 X0)) \Rightarrow \\
 & (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3.(m1_subset_1 \\
 & X3 (u1_struct_0 X0)) \Rightarrow (\forall X4.((v1_relat_1 X4) \wedge (v1_funct_1 \\
 & X4)) \Rightarrow ((r1_msualg_6 X0 X2 X3 X1 X4) \Rightarrow ((r1_rewrite1 (k3_msualg_6 \\
 & X0) X2 X3) \wedge (m2_msualg_6 X4 X0 X1 X2 X3))))))
 \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.\forall X4.\forall X5. \\ & (((v1_funct_1 X4)\wedge(m1_subset_1 X4 (k1_zfmisc_1 (k2_zfmisc_1 \\ & X0 X1))))\wedge((v1_funct_1 X5)\wedge(m1_subset_1 X5 (k1_zfmisc_1 (k2_zfmisc_1 \\ & X2 X3))))\Rightarrow(k1_partfun1 X0 X1 X2 X3 X4 X5 = k3_relat_1 X4 X5) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.(((\neg v2_struct_0 \\ & X0)\wedge((\neg v11_struct_0 X0)\wedge(l1_msualg_1 X0)))\wedge(((v4_msualg_1 \\ & X1 X0)\wedge(l3_msualg_1 X1 X0))\wedge((m1_subset_1 X2 (u1_struct_0 X0))\wedge \\ & (m1_subset_1 X3 (u1_struct_0 X0))))\Rightarrow(\forall X4.(m2_msualg_6 \\ & X4 X0 X1 X2 X3)\Rightarrow((v1_funct_1 X4)\wedge((v1_funct_2 X4 (k1_funct_1 (u3_msualg_1 \\ & X0 X1) X2) (k1_funct_1 (u3_msualg_1 X0 X1) X3))\wedge(m1_subset_1 X4 \\ & (k1_zfmisc_1 (k2_zfmisc_1 (k1_funct_1 (u3_msualg_1 X0 X1) X2) \\ & (k1_funct_1 (u3_msualg_1 X0 X1) X3)))))) \end{aligned} \quad (4)$$

Theorem 1

$$\begin{aligned} & \forall X0.(((\neg v2_struct_0 X0)\wedge((\neg v11_struct_0 X0)\wedge(l1_msualg_1 \\ & X0)))\Rightarrow(\forall X1.((v4_msualg_1 X1 X0)\wedge(l3_msualg_1 X1 X0))\Rightarrow \\ & (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0))\Rightarrow(\forall X3.(m1_subset_1 \\ & X3 (u1_struct_0 X0))\Rightarrow(\forall X4.(m1_subset_1 X4 (u1_struct_0 \\ & X0))\Rightarrow((r1_rewrite1 (k3_msualg_6 X0) X2 X3)\Rightarrow(\forall X5.(m2_msualg_6 \\ & X5 X0 X1 X2 X3)\Rightarrow(\forall X6.((v1_relat_1 X6)\wedge(v1_funct_1 X6))\Rightarrow \\ & ((r1_msualg_6 X0 X3 X4 X1 X6)\Rightarrow(m2_msualg_6 (k3_relat_1 X5 X6) X0 \\ & X1 X2 X4)))))))))) \end{aligned}$$