

t68_scmfsa_2

(TMQnqPiDq59hxJttJXfs1Bj41MJKJBWAzmU)

October 27, 2020

Let $v1_ami_2 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k1_scmfsa_2 : \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v5_funct_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_memstr_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_3 : \iota$ be given. Let $v1_partfun1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_extpro_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10_scmfsa_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_struct_0 : \iota \Rightarrow \iota$ be given. Let $k4_card_1 : \iota \Rightarrow \iota$ be given. Let $k5_memstr_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_int_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_scmfsa_2 : \iota \Rightarrow o$ be given. Let $r2_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $k4_numbers : \iota$ be given. Let $k18_scmfsa_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_int_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0.((v1_ami_2 X0) \wedge (m1_subset_1 X0 (u1_struct_0 k1_scmfsa_2))) \Rightarrow \\
 & (\forall X1.((v1_ami_2 X1) \wedge (m1_subset_1 X1 (u1_struct_0 k1_scmfsa_2))) \Rightarrow \\
 & (\forall X2.((v1_relat_1 X2) \wedge ((v4_relat_1 X2 (u1_struct_0 k1_scmfsa_2)) \wedge \\
 & ((v1_funct_1 X2) \wedge ((v5_funct_1 X2 (k2_memstr_0 np_3 k1_scmfsa_2)) \wedge \\
 & (v1_partfun1 X2 (u1_struct_0 k1_scmfsa_2)))))) \Rightarrow ((k1_funct_1 \\
 & (k2_extpro_1 np_3 k1_scmfsa_2 (k10_scmfsa_2 X0 X1) X2) (k4_struct_0 \\
 & k1_scmfsa_2) = k4_card_1 (k5_memstr_0 np_3 k1_scmfsa_2 X2)) \wedge \\
 & (((X0 \neq X1) \Rightarrow (k1_funct_1 (k2_extpro_1 np_3 k1_scmfsa_2 (k10_scmfsa_2 \\
 & X0 X1) X2) X0 = k5_int_1 (k1_funct_1 X2 X0) (k1_funct_1 X2 X1))) \wedge (\\
 & (k1_funct_1 (k2_extpro_1 np_3 k1_scmfsa_2 (k10_scmfsa_2 X0 X1) \\
 & X2) X1 = k6_int_1 (k1_funct_1 X2 X0) (k1_funct_1 X2 X1)) \wedge ((\forall X3. \\
 & ((v1_ami_2 X3) \wedge (m1_subset_1 X3 (u1_struct_0 k1_scmfsa_2))) \Rightarrow \\
 & (\neg (X3 \neq X0) \wedge ((X3 \neq X1) \wedge (k1_funct_1 (k2_extpro_1 np_3 k1_scmfsa_2 \\
 & (k10_scmfsa_2 X0 X1) X2) X3 \neq k1_funct_1 X2 X3)))) \wedge (\forall X3.(\\
 & m1_scmfsa_2 X3) \Rightarrow (r2_relset_1 k5_numbers k4_numbers (k18_scmfsa_2 \\
 & (k2_extpro_1 np_3 k1_scmfsa_2 (k10_scmfsa_2 X0 X1) X2) X3) (k18_scmfsa_2 \\
 & X2 X3)))))))))
 \end{aligned}
 \tag{1}$$

Theorem 1

$$\begin{aligned} & \forall X0.((v1_ami_2 X0) \wedge (m1_subset_1 X0 (u1_struct_0 k1_scmfsa_2))) \Rightarrow \\ & (\forall X1.((v1_relat_1 X1) \wedge ((v4_relat_1 X1 (u1_struct_0 k1_scmfsa_2)) \wedge \\ & ((v1_funct_1 X1) \wedge ((v5_funct_1 X1 (k2_memstr_0 np_3 k1_scmfsa_2)) \wedge \\ & (v1_partfun1 X1 (u1_struct_0 k1_scmfsa_2)))))) \Rightarrow ((k1_funct_1 \\ & (k2_extpro_1 np_3 k1_scmfsa_2 (k10_scmfsa_2 X0 X0) X1) (k4_struct_0 \\ & k1_scmfsa_2) = k4_card_1 (k5_memstr_0 np_3 k1_scmfsa_2 X1)) \wedge \\ & ((k1_funct_1 (k2_extpro_1 np_3 k1_scmfsa_2 (k10_scmfsa_2 X0 \\ & X0) X1) X0 = k6_int_1 (k1_funct_1 X1 X0) (k1_funct_1 X1 X0)) \wedge ((\forall X2. \\ & ((v1_ami_2 X2) \wedge (m1_subset_1 X2 (u1_struct_0 k1_scmfsa_2))) \Rightarrow \\ & ((X2 \neq X0) \Rightarrow (k1_funct_1 (k2_extpro_1 np_3 k1_scmfsa_2 (k10_scmfsa_2 \\ & X0 X0) X1) X2 = k1_funct_1 X1 X2))) \wedge (\forall X2.(m1_scmfsa_2 X2) \Rightarrow \\ & (r2_relset_1 k5_numbers k4_numbers (k18_scmfsa_2 (k2_extpro_1 \\ & np_3 k1_scmfsa_2 (k10_scmfsa_2 X0 X0) X1) X2) (k18_scmfsa_2 X1 \\ & X2))))))))) \end{aligned}$$