

148_scmfsa8a (TM-
RVRZ89yGaP6rVyDdJubHNmS8dEHg1MF2M)

October 27, 2020

Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $v5_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_compos_1 : \iota \Rightarrow \iota$ be given. Let $k1_scmfsa_2 : \iota$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_partfun1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $v1_afinsq_1 : \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ 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 $r5_scmfsa7b : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_scmfsa_m : \iota \Rightarrow \iota$ be given. Let $r6_scmfsa7b : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_memstr_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_extpro_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_funct_4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_scmfsa6a : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_scmfsa8a : \iota \Rightarrow \iota$ be given. Let $k2_nat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_card_1 : \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k4_compos_1 : \iota \Rightarrow \iota$ be given. Let $k8_memstr_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k16_funcop_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_scmfsa_2 : \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k8_extpro_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_2 : \iota$ be given. Let $k6_memstr_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_extpro_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_compos_1 : \iota \Rightarrow \iota$ be given. Let $r1_extpro_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_funcop_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. ((v1_relat_1 X0) \wedge ((v4_relat_1 X0 (u1_struct_0 k1_scmfsa_2)) \wedge \\ & ((v1_funct_1 X0) \wedge (v5_funct_1 X0 (k2_memstr_0 np_3 k1_scmfsa_2)))))) \Rightarrow \\ & (k1_funct_1 (k1_scmfsa_m X0) (k4_scmfsa_2 k6_numbers) = np_1) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v1_xboole_0 X0) \wedge ((v1_relat_1 X0) \wedge ((v4_relat_1 \\
& X0 k5_numbers) \wedge ((v5_relat_1 X0 (u1_compos_1 k1_scmfsa_2)) \wedge \\
& (v1_funct_1 X0) \wedge ((v1_finset_1 X0) \wedge (v1_afinsq_1 X0)))))) \Rightarrow (\\
& \forall X1.((\neg v1_xboole_0 X1) \wedge ((v1_relat_1 X1) \wedge ((v4_relat_1 \\
& X1 k5_numbers) \wedge ((v5_relat_1 X1 (u1_compos_1 k1_scmfsa_2)) \wedge \\
& (v1_funct_1 X1) \wedge ((v1_finset_1 X1) \wedge (v1_afinsq_1 X1)))))) \Rightarrow (\\
& \forall X2.((v1_relat_1 X2) \wedge ((v4_relat_1 X2 (u1_struct_0 k1_scmfsa_2)) \wedge \\
& ((v1_funct_1 X2) \wedge ((v5_funct_1 X2 (k2_memstr_0 np_3 k1_scmfsa_2)) \wedge \\
& (v1_partfun1 X2 (u1_struct_0 k1_scmfsa_2)))))) \Rightarrow (\forall X3. \\
& ((v1_relat_1 X3) \wedge ((v4_relat_1 X3 k5_numbers) \wedge ((v5_relat_1 X3 \\
& (u1_compos_1 k1_scmfsa_2)) \wedge ((v1_funct_1 X3) \wedge (v1_partfun1 X3 \\
& k5_numbers)))))) \Rightarrow (((r5_scmfsa7b X0 X2 X3) \wedge (r6_scmfsa7b X0 X2 X3)) \Rightarrow \\
& (r1_extpro_1 np_3 k1_scmfsa_2 (k1_funct_4 X3 (k3_scmfsa6a (k3_scmfsa6a \\
& (k3_scmfsa6a X0 (k1_scmfsa8a (k2_nat_1 (k5_card_1 X1) np_1))) \\
& X1) (k4_compos_1 k1_scmfsa_2))) (k8_memstr_0 np_3 k1_scmfsa_2 \\
& X2))))))
\end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 (u1_struct_0 k1_scmfsa_2)) \wedge \\
& ((v1_funct_1 X0) \wedge ((v5_funct_1 X0 (k2_memstr_0 np_3 k1_scmfsa_2)) \wedge \\
& (v1_partfun1 X0 (u1_struct_0 k1_scmfsa_2)))))) \Rightarrow ((k1_funct_1 \\
& X0 (k4_scmfsa_2 k6_numbers) = np_1) \Rightarrow (k8_memstr_0 np_3 k1_scmfsa_2 \\
& X0 = k1_scmfsa_m X0))
\end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 (u1_struct_0 k1_scmfsa_2)) \wedge \\
& ((v1_funct_1 X0) \wedge ((v5_funct_1 X0 (k2_memstr_0 np_3 k1_scmfsa_2)))))) \Rightarrow \\
& (k1_scmfsa_m (k1_scmfsa_m X0) = k1_scmfsa_m X0)
\end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 \ k5_numbers) \wedge ((v5_relat_1 \\
& X0 \ (u1_compos_1 \ k1_scmf_sa_2)) \wedge ((v1_funct_1 X0) \wedge (v1_partfun1 \\
& X0 \ k5_numbers)))) \Rightarrow (\forall X1.((\neg v1_xboole_0 X1) \wedge ((v1_relat_1 \\
& X1) \wedge ((v4_relat_1 X1 \ k5_numbers) \wedge ((v5_relat_1 X1 \ (u1_compos_1 \\
& k1_scmf_sa_2)) \wedge ((v1_funct_1 X1) \wedge ((v1_finset_1 X1) \wedge (v1_afinsq_1 \\
& X1)))))) \Rightarrow (\forall X2.((\neg v1_xboole_0 X2) \wedge ((v1_relat_1 X2) \wedge \\
& ((v4_relat_1 X2 \ k5_numbers) \wedge ((v5_relat_1 X2 \ (u1_compos_1 \ k1_scmf_sa_2)) \wedge \\
& ((v1_funct_1 X2) \wedge ((v1_finset_1 X2) \wedge (v1_afinsq_1 X2)))))) \Rightarrow \\
& (\forall X3.((v1_relat_1 X3) \wedge ((v4_relat_1 X3 \ (u1_struct_0 \ k1_scmf_sa_2)) \wedge \\
& ((v1_funct_1 X3) \wedge ((v5_funct_1 X3 \ (k2_memstr_0 \ np_3 \ k1_scmf_sa_2)) \wedge \\
& (v1_partfun1 X3 \ (u1_struct_0 \ k1_scmf_sa_2)))))) \Rightarrow ((r5_scmf_sa7b \\
& X1 \ X3 \ X0) \wedge (r6_scmf_sa7b \ X1 \ X3 \ X0)) \Rightarrow ((k5_memstr_0 \ np_3 \ k1_scmf_sa_2 \\
& (k5_extpro_1 \ np_3 \ k1_scmf_sa_2 \ (k1_funct_4 \ X0 \ (k3_scmf_sa6a \ (k3_scmf_sa6a \\
& (k3_scmf_sa6a \ X1 \ (k1_scmf_sa8a \ (k2_nat_1 \ (k5_card_1 \ X2) \ np_1))) \\
& X2) \ (k4_compos_1 \ k1_scmf_sa_2))) \ (k8_memstr_0 \ np_3 \ k1_scmf_sa_2 \\
& X3) \ (k2_nat_1 \ (k8_extpro_1 \ np_3 \ k1_scmf_sa_2 \ (k1_funct_4 \ X0 \ X1) \\
& (k8_memstr_0 \ np_3 \ k1_scmf_sa_2 \ X3)) \ np_2)) = k2_nat_1 \ (k2_nat_1 \\
& (k5_card_1 \ X1) \ (k5_card_1 \ X2)) \ np_1) \wedge ((k6_memstr_0 \ np_3 \ k1_scmf_sa_2 \\
& (k5_extpro_1 \ np_3 \ k1_scmf_sa_2 \ (k1_funct_4 \ X0 \ X1) \ (k8_memstr_0 \\
& np_3 \ k1_scmf_sa_2 \ X3) \ (k8_extpro_1 \ np_3 \ k1_scmf_sa_2 \ (k1_funct_4 \\
& X0 \ X1) \ (k8_memstr_0 \ np_3 \ k1_scmf_sa_2 \ X3))) = k6_memstr_0 \ np_3 \\
& k1_scmf_sa_2 \ (k5_extpro_1 \ np_3 \ k1_scmf_sa_2 \ (k1_funct_4 \ X0 \ (k3_scmf_sa6a \\
& (k3_scmf_sa6a \ (k3_scmf_sa6a \ X1 \ (k1_scmf_sa8a \ (k2_nat_1 \ (k5_card_1 \\
& X2) \ np_1))) \ X2) \ (k4_compos_1 \ k1_scmf_sa_2))) \ (k8_memstr_0 \ np_3 \\
& k1_scmf_sa_2 \ X3) \ (k2_nat_1 \ (k8_extpro_1 \ np_3 \ k1_scmf_sa_2 \ (k1_funct_4 \\
& X0 \ X1) \ (k8_memstr_0 \ np_3 \ k1_scmf_sa_2 \ X3)) \ np_2))) \wedge ((\forall X4. \\
& (m2_subset_1 \ X4 \ k1_numbers \ k5_numbers) \Rightarrow (\neg(\neg r1_xxreal_0 \ (k2_nat_1 \\
& (k8_extpro_1 \ np_3 \ k1_scmf_sa_2 \ (k1_funct_4 \ X0 \ X1) \ (k8_memstr_0 \\
& np_3 \ k1_scmf_sa_2 \ X3)) \ np_2) \ X4) \wedge (k3_extpro_1 \ np_3 \ k1_scmf_sa_2 \\
& (k1_funct_4 \ X0 \ (k3_scmf_sa6a \ (k3_scmf_sa6a \ (k3_scmf_sa6a \ X1 \ (k1_scmf_sa8a \\
& (k2_nat_1 \ (k5_card_1 \ X2) \ np_1))) \ X2) \ (k4_compos_1 \ k1_scmf_sa_2))) \\
& (k5_extpro_1 \ np_3 \ k1_scmf_sa_2 \ (k1_funct_4 \ X0 \ (k3_scmf_sa6a \ (k3_scmf_sa6a \\
& (k3_scmf_sa6a \ X1 \ (k1_scmf_sa8a \ (k2_nat_1 \ (k5_card_1 \ X2) \ np_1))) \\
& X2) \ (k4_compos_1 \ k1_scmf_sa_2))) \ (k8_memstr_0 \ np_3 \ k1_scmf_sa_2 \\
& X3) \ X4) = k2_compos_1 \ k1_scmf_sa_2))) \wedge ((\forall X4.(m2_subset_1 \\
& X4 \ k1_numbers \ k5_numbers) \Rightarrow ((r1_xxreal_0 \ X4 \ (k8_extpro_1 \ np_3 \\
& k1_scmf_sa_2 \ (k1_funct_4 \ X0 \ X1) \ (k8_memstr_0 \ np_3 \ k1_scmf_sa_2 \\
& X3))) \Rightarrow (k5_memstr_0 \ np_3 \ k1_scmf_sa_2 \ (k5_extpro_1 \ np_3 \ k1_scmf_sa_2 \\
& (k1_funct_4 \ X0 \ (k3_scmf_sa6a \ (k3_scmf_sa6a \ (k3_scmf_sa6a \ X1 \ (k1_scmf_sa8a \\
& (k2_nat_1 \ (k5_card_1 \ X2) \ np_1))) \ X2) \ (k4_compos_1 \ k1_scmf_sa_2))) \\
& (k8_memstr_0 \ np_3 \ k1_scmf_sa_2 \ X3) \ X4) = k5_memstr_0 \ np_3 \ k1_scmf_sa_2 \\
& (k5_extpro_1 \ np_3 \ k1_scmf_sa_2 \ (k1_funct_4 \ X0 \ X1) \ (k8_memstr_0 \\
& np_3 \ k1_scmf_sa_2 \ X3) \ X4))) \wedge ((k5_memstr_0 \ np_3 \ k1_scmf_sa_2 \\
& (k5_extpro_1 \ np_3 \ k1_scmf_sa_2 \ (k1_funct_4 \ X0 \ (k3_scmf_sa6a \ (k3_scmf_sa6a \\
& (k3_scmf_sa6a \ X1 \ (k1_scmf_sa8a \ (k2_nat_1 \ (k5_card_1 \ X2) \ np_1))) \\
& X2) \ (k4_compos_1 \ k1_scmf_sa_2))) \ (k8_memstr_0 \ np_3 \ k1_scmf_sa_2 \\
& X3) \ (k2_nat_1 \ (k8_extpro_1 \ np_3 \ k1_scmf_sa_2 \ (k1_funct_4 \ X0 \ X1) \\
& (k8_memstr_0 \ np_3 \ k1_scmf_sa_2 \ X3)) \ np_1)) = k5_card_1 \ X1) \wedge ((\\
& r1_extpro_1 \ np_3 \ k1_scmf_sa_2 \ (k1_funct_4 \ X0 \ (k3_scmf_sa6a \ (k3_scmf_sa6a \\
& (k3_scmf_sa6a \ X1 \ (k1_scmf_sa8a \ (k2_nat_1 \ (k5_card_1 \ X2) \ np_1))) \\
& X2) \ (k4_compos_1 \ k1_scmf_sa_2))) \ (k8_memstr_0 \ np_3 \ k1_scmf_sa_2 \\
& X3)) \wedge (k8_extpro_1 \ np_3 \ k1_scmf_sa_2 \ (k1_funct_4 \ X0 \ (k3_scmf_sa6a \\
& (k3_scmf_sa6a \ (k3_scmf_sa6a \ X1 \ (k1_scmf_sa8a \ (k2_nat_1 \ (k5_card_1 \\
& X2) \ np_1))) \ X2) \ (k4_compos_1 \ k1_scmf_sa_2))) \ (k8_memstr_0 \ np_3 \\
& k1_scmf_sa_2 \ X3) = k2_nat_1 \ (k8_extpro_1 \ np_3 \ k1_scmf_sa_2 \ (k1_funct_4 \\
& X0 \ X1) \ (k8_memstr_0 \ np_3 \ k1_scmf_sa_2 \ X3)) \ np_2)))))))))
\end{aligned}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 (u1_struct_0 k1_scmf_sa_2)) \wedge \\
& ((v1_funct_1 X0) \wedge ((v5_funct_1 X0 (k2_memstr_0 np_3 k1_scmf_sa_2)) \wedge \\
& (v1_partfun1 X0 (u1_struct_0 k1_scmf_sa_2)))))) \Rightarrow ((v1_relat_1 \\
& (k1_scmf_sa_m X0)) \wedge ((v4_relat_1 (k1_scmf_sa_m X0) (u1_struct_0 \\
& k1_scmf_sa_2)) \wedge ((v1_funct_1 (k1_scmf_sa_m X0)) \wedge ((v5_funct_1 \\
& (k1_scmf_sa_m X0) (k2_memstr_0 np_3 k1_scmf_sa_2)) \wedge (v1_partfun1 \\
& (k1_scmf_sa_m X0) (u1_struct_0 k1_scmf_sa_2))))))
\end{aligned} \tag{6}$$

Assume the following.

$$\forall X0. \forall X1. k16_funcop_1 X0 X1 = k7_funcop_1 (k1_tarski X0) X1 \tag{7}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 (u1_struct_0 k1_scmf_sa_2)) \wedge \\
& ((v1_funct_1 X0) \wedge (v5_funct_1 X0 (k2_memstr_0 np_3 k1_scmf_sa_2)))))) \Rightarrow \\
& (k1_scmf_sa_m X0 = k1_funct_4 X0 (k8_memstr_0 np_3 k1_scmf_sa_2 \\
& (k16_funcop_1 (k4_scmf_sa_2 k6_numbers) np_1)))
\end{aligned} \tag{8}$$

Theorem 1

$$\begin{aligned}
& \forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 \ k5_numbers) \wedge ((v5_relat_1 \\
& X0 \ (u1_compos_1 \ k1_scmfsa_2)) \wedge ((v1_funct_1 X0) \wedge (v1_partfun1 \\
& X0 \ k5_numbers)))) \Rightarrow (\forall X1.((\neg v1_xboole_0 X1) \wedge ((v1_relat_1 \\
& X1) \wedge ((v4_relat_1 X1 \ k5_numbers) \wedge ((v5_relat_1 X1 \ (u1_compos_1 \\
& k1_scmfsa_2)) \wedge ((v1_funct_1 X1) \wedge ((v1_finset_1 X1) \wedge (v1_afinsq_1 \\
& X1)))))) \Rightarrow (\forall X2.((\neg v1_xboole_0 X2) \wedge ((v1_relat_1 X2) \wedge \\
& ((v4_relat_1 X2 \ k5_numbers) \wedge ((v5_relat_1 X2 \ (u1_compos_1 \ k1_scmfsa_2)) \wedge \\
& ((v1_funct_1 X2) \wedge ((v1_finset_1 X2) \wedge (v1_afinsq_1 X2)))))) \Rightarrow \\
& (\forall X3.((v1_relat_1 X3) \wedge ((v4_relat_1 X3 \ (u1_struct_0 \ k1_scmfsa_2)) \wedge \\
& ((v1_funct_1 X3) \wedge ((v5_funct_1 X3 \ (k2_memstr_0 \ np_3 \ k1_scmfsa_2)) \wedge \\
& (v1_partfun1 \ X3 \ (u1_struct_0 \ k1_scmfsa_2)))))) \Rightarrow (((r5_scmfsa7b \\
& X1 \ (k1_scmfsa_m \ X3) \ X0) \wedge (r6_scmfsa7b \ X1 \ (k1_scmfsa_m \ X3) \ X0)) \Rightarrow \\
& ((k5_memstr_0 \ np_3 \ k1_scmfsa_2 \ (k5_extpro_1 \ np_3 \ k1_scmfsa_2 \\
& (k1_funct_4 \ X0 \ (k3_scmfsa6a \ (k3_scmfsa6a \ (k3_scmfsa6a \ X1 \ (k1_scmfsa8a \\
& (k2_nat_1 \ (k5_card_1 \ X2) \ np_1))) \ X2) \ (k4_compos_1 \ k1_scmfsa_2))) \\
& (k1_funct_4 \ X3 \ (k8_memstr_0 \ np_3 \ k1_scmfsa_2 \ (k16_funcop_1 \ (\\
& k4_scmfsa_2 \ k6_numbers) \ np_1))) \ (k2_nat_1 \ (k8_extpro_1 \ np_3 \\
& k1_scmfsa_2 \ (k1_funct_4 \ X0 \ X1) \ (k1_funct_4 \ X3 \ (k8_memstr_0 \ np_3 \\
& k1_scmfsa_2 \ (k16_funcop_1 \ (k4_scmfsa_2 \ k6_numbers) \ np_1)))) \\
& np_2)) = k2_nat_1 \ (k2_nat_1 \ (k5_card_1 \ X1) \ (k5_card_1 \ X2)) \ np_1) \wedge \\
& ((k6_memstr_0 \ np_3 \ k1_scmfsa_2 \ (k5_extpro_1 \ np_3 \ k1_scmfsa_2 \\
& (k1_funct_4 \ X0 \ X1) \ (k1_funct_4 \ X3 \ (k8_memstr_0 \ np_3 \ k1_scmfsa_2 \\
& (k16_funcop_1 \ (k4_scmfsa_2 \ k6_numbers) \ np_1))) \ (k8_extpro_1 \\
& np_3 \ k1_scmfsa_2 \ (k1_funct_4 \ X0 \ X1) \ (k1_funct_4 \ X3 \ (k8_memstr_0 \\
& np_3 \ k1_scmfsa_2 \ (k16_funcop_1 \ (k4_scmfsa_2 \ k6_numbers) \ np_1)))) = \\
& k6_memstr_0 \ np_3 \ k1_scmfsa_2 \ (k5_extpro_1 \ np_3 \ k1_scmfsa_2 \\
& (k1_funct_4 \ X0 \ (k3_scmfsa6a \ (k3_scmfsa6a \ (k3_scmfsa6a \ X1 \ (k1_scmfsa8a \\
& (k2_nat_1 \ (k5_card_1 \ X2) \ np_1))) \ X2) \ (k4_compos_1 \ k1_scmfsa_2))) \\
& (k1_funct_4 \ X3 \ (k8_memstr_0 \ np_3 \ k1_scmfsa_2 \ (k16_funcop_1 \ (\\
& k4_scmfsa_2 \ k6_numbers) \ np_1))) \ (k2_nat_1 \ (k8_extpro_1 \ np_3 \\
& k1_scmfsa_2 \ (k1_funct_4 \ X0 \ X1) \ (k1_funct_4 \ X3 \ (k8_memstr_0 \ np_3 \\
& k1_scmfsa_2 \ (k16_funcop_1 \ (k4_scmfsa_2 \ k6_numbers) \ np_1)))) \\
& np_2))) \wedge ((\forall X4.(m2_subset_1 \ X4 \ k1_numbers \ k5_numbers) \Rightarrow \\
& (\neg(\neg r1_xreal_0 \ (k2_nat_1 \ (k8_extpro_1 \ np_3 \ k1_scmfsa_2 \ (k1_funct_4 \\
& X0 \ X1) \ (k1_funct_4 \ X3 \ (k8_memstr_0 \ np_3 \ k1_scmfsa_2 \ (k16_funcop_1 \\
& (k4_scmfsa_2 \ k6_numbers) \ np_1)))) \ np_2) \ X4) \wedge (k3_extpro_1 \ np_3 \\
& k1_scmfsa_2 \ (k1_funct_4 \ X0 \ (k3_scmfsa6a \ (k3_scmfsa6a \ (k3_scmfsa6a \\
& X1 \ (k1_scmfsa8a \ (k2_nat_1 \ (k5_card_1 \ X2) \ np_1))) \ X2) \ (k4_compos_1 \\
& k1_scmfsa_2))) \ (k5_extpro_1 \ np_3 \ k1_scmfsa_2 \ (k1_funct_4 \ X0 \\
& (k3_scmfsa6a \ (k3_scmfsa6a \ (k3_scmfsa6a \ X1 \ (k1_scmfsa8a \ (k2_nat_1 \\
& (k5_card_1 \ X2) \ np_1))) \ X2) \ (k4_compos_1 \ k1_scmfsa_2))) \ (k1_funct_4 \\
& X3 \ (k8_memstr_0 \ np_3 \ k1_scmfsa_2 \ (k16_funcop_1 \ (k4_scmfsa_2 \\
& k6_numbers) \ np_1))) \ X4) = k2_compos_1 \ k1_scmfsa_2))) \wedge ((\forall X4. \\
& (m2_subset_1 \ X4 \ k1_numbers \ k5_numbers) \Rightarrow ((r1_xreal_0 \ X4 \ (k8_extpro_1 \\
& np_3 \ k1_scmfsa_2 \ (k1_funct_4 \ X0 \ X1) \ (k1_funct_4 \ X3 \ (k8_memstr_0 \\
& np_3 \ k1_scmfsa_2 \ (k16_funcop_1 \ (k4_scmfsa_2 \ k6_numbers) \ np_1)))) \Rightarrow \\
& (k5_memstr_0 \ np_3 \ k1_scmfsa_2 \ (k5_extpro_1 \ np_3 \ k1_scmfsa_2 \\
& (k1_funct_4 \ X0 \ (k3_scmfsa6a \ (k3_scmfsa6a \ (k3_scmfsa6a \ X1 \ (k1_scmfsa8a \\
& (k2_nat_1 \ (k5_card_1 \ X2) \ np_1))) \ X2) \ (k4_compos_1 \ k1_scmfsa_2))) \\
& (k1_funct_4 \ X3 \ (k8_memstr_0 \ np_3 \ k1_scmfsa_2 \ (k16_funcop_1 \ (\\
& k4_scmfsa_2 \ k6_numbers) \ np_1))) \ X4) = k5_memstr_0 \ np_3 \ k1_scmfsa_2 \\
& (k5_extpro_1 \ np_3 \ k1_scmfsa_2 \ (k1_funct_4 \ X0 \ X1) \ (k1_funct_4 \\
& X3 \ (k8_memstr_0 \ np_3 \ k1_scmfsa_2 \ (k16_funcop_1 \ (k4_scmfsa_2 \\
& k6_numbers) \ np_1))) \ X4))) \wedge ((k5_memstr_0 \ np_3 \ k1_scmfsa_2 \\
& (k5_extpro_1 \ np_3 \ k1_scmfsa_2 \ (k1_funct_4 \ X0 \ (k3_scmfsa6a \ (k3_scmfsa6a \\
& (k3_scmfsa6a \ X1 \ (k1_scmfsa8a \ (k2_nat_1 \ (k5_card_1 \ X2) \ np_1))) \\
& X2) \ (k4_compos_1 \ k1_scmfsa_2))) \ (k1_funct_4 \ X3 \ (k8_memstr_0 \ np_3 \\
& k1_scmfsa_2 \ (k16_funcop_1 \ (k4_scmfsa_2 \ k6_numbers) \ np_1)))) \\
& (k2_nat_1 \ (k8_extpro_1 \ np_3 \ k1_scmfsa_2 \ (k1_funct_4 \ X0 \ X1) \ (k1_funct_4
\end{aligned}$$