

t22_scmfsa6a
(TMc6jU6xU1EWtQsJo2xDCuLMR4dyDt1opD7)

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 $v1_finset_1 : \iota \Rightarrow o$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $v2_compos_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_scmfsa6a : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k6_funct_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $l1_extpro_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l1_memstr_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l1_compos_1 : \iota \Rightarrow o$ be given. Let $v1_extpro_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np_3 : \iota$ be given. Let $k2_compos_1 : \iota \Rightarrow \iota$ be given. Let $k11_scmfsa_2 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} \forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (\forall X1. \forall X2. \\ (\neg X1 \in k10_xtuple_0 X0) \Rightarrow (k6_funct_4 X0 X1 X2 = X0)) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (l1_extpro_1 X1 X0) \Rightarrow ((l1_memstr_0 X1 X0) \wedge (l1_compos_1 X1)) \quad (2)$$

Assume the following.

$$(v1_extpro_1 k1_scmfsa_2 np_3) \wedge (l1_extpro_1 k1_scmfsa_2 np_3) \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v5_relat_1 \\ X0 (u1_compos_1 k1_scmfsa_2)) \wedge ((v1_funct_1 X0) \wedge (v1_finset_1 \\ X0)))))) \Rightarrow (\forall X1. (m2_subset_1 X1 k1_numbers k5_numbers) \Rightarrow \\ (k1_scmfsa6a X0 X1 = k6_funct_4 X0 (k2_compos_1 k1_scmfsa_2) (k11_scmfsa_2 \\ X1))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} \forall X0. (l1_compos_1 X0) \Rightarrow (\forall X1. ((v1_relat_1 X1) \wedge ((\\ v5_relat_1 X1 (u1_compos_1 X0)) \wedge (v1_funct_1 X1))) \Rightarrow ((v2_compos_1 \\ X1 X0) \Leftrightarrow (\neg k2_compos_1 X0 \in k10_xtuple_0 X1))) \end{aligned} \quad (5)$$

Theorem 1

$$\begin{aligned} & \forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v5_relat_1 \\ & X0 (u1_compos_1 k1_scmfsa_2)) \wedge ((v1_funct_1 X0) \wedge (v1_finset_1 \\ & X0)))))) \Rightarrow (\forall X1.(m2_subset_1 X1 k1_numbers k5_numbers) \Rightarrow \\ & ((v2_compos_1 X0 k1_scmfsa_2) \Rightarrow (k1_scmfsa6a X0 X1 = X0))) \end{aligned}$$