

t23_scmfsa_1 (TMbmi- uLKA8LdPByoKwAzKLh4dgm4AgYfa2t)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_card_3 : \iota \Rightarrow \iota$ be given. Let $k3_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_scmfsa_1 : \iota$ be given. Let $k5_scmfsa_1 : \iota$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_scmfsa_1 : \iota$ be given. Let $k2_scmfsa_1 : \iota$ be given. Let $v1_int_1 : \iota \Rightarrow o$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_scmfsa_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_numbers : \iota$ be given. Let $k4_numbers : \iota$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k2_funcop_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $k1_funct_4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_funcop_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v4_funct_1 : \iota \Rightarrow o$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np_3 : \iota$ be given. Let $v1_partfun1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k16_funcop_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$k1_funct_1 (k3_relat_1 k4_scmfsa_1 k5_scmfsa_1) k5_numbers = k5_numbers \quad (1)$$

Assume the following.

$$k5_numbers \neq k4_numbers \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (k9_xtuple_0 (k2_funcop_1 X0 X1) = X0) \wedge (r1_tarski (k10_xtuple_0 (k2_funcop_1 X0 X1)) (k1_tarski X1)) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. ((v1_relat_1 X1) \wedge (v1_funct_1 X1)) \Rightarrow (\forall X2. ((v1_relat_1 X2) \wedge (v1_funct_1 X2)) \Rightarrow ((\neg X0 \in k9_xtuple_0 X1) \Rightarrow (k1_funct_1 (k1_funct_4 X2 X1) X0 = k1_funct_1 X2 X0))) \quad (4)$$

Assume the following.

$$\forall X0. (m2_subset_1 X0 k1_scmfsa_1 k2_scmfsa_1) \Rightarrow (k1_funct_1 (k3_relat_1 k4_scmfsa_1 k5_scmfsa_1) X0 = k4_numbers) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.k7_funcop_1 X0 X1 = k2_funcop_1 X0 X1 \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.v1_relat_1 (k2_zfmisc_1 X0 X1) \quad (7)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0)\wedge(v1_funct_1 X0))\Rightarrow(v4_funct_1 (k4_card_3 X0)) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.(((v1_relat_1 X0)\wedge(v1_funct_1 X0))\wedge((v1_relat_1 X1)\wedge(v1_funct_1 X1)))\Rightarrow((v1_relat_1 (k3_relat_1 X0 X1))\wedge(v1_funct_1 (k3_relat_1 X0 X1))) \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.(v1_funct_1 (k7_funcop_1 X0 X1))\wedge((v1_funct_2 (k7_funcop_1 X0 X1) X0 (k1_tarski X1))\wedge(m1_subset_1 (k7_funcop_1 X0 X1) (k1_zfmisc_1 (k2_zfmisc_1 X0 (k1_tarski X1)))))) \quad (10)$$

Assume the following.

$$(v1_relat_1 k5_scmf_sa_1)\wedge((v4_relat_1 k5_scmf_sa_1 np_3)\wedge(v1_funct_1 k5_scmf_sa_1)\wedge(v1_partfun1 k5_scmf_sa_1 np_3)) \quad (11)$$

Assume the following.

$$(v1_funct_1 k4_scmf_sa_1)\wedge((v1_funct_2 k4_scmf_sa_1 k1_scmf_sa_1 np_3)\wedge(m1_subset_1 k4_scmf_sa_1 (k1_zfmisc_1 (k2_zfmisc_1 k1_scmf_sa_1 np_3)))) \quad (12)$$

Assume the following.

$$\forall X0.\forall X1.v1_relat_1 (k3_relat_1 X0 X1) \quad (13)$$

Assume the following.

$$\forall X0.\forall X1.k16_funcop_1 X0 X1 = k7_funcop_1 (k1_tarski X0) X1 \quad (14)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 (k4_card_3 (k3_relat_1 k4_scmf_sa_1 k5_scmf_sa_1)))\Rightarrow(\forall X1.(m2_subset_1 X1 k1_scmf_sa_1 k2_scmf_sa_1)\Rightarrow(\forall X2.(v1_int_1 X2)\Rightarrow(k7_scmf_sa_1 X0 X1 X2 = k1_funct_4 X0 (k16_funcop_1 X1 X2)))) \quad (15)$$

Assume the following.

$$\forall X0.\forall X1.k2_funcop_1 X0 X1 = k2_zfmisc_1 X0 (k1_tarSKI X1) \quad (16)$$

Assume the following.

$$\forall X0.\forall X1.(X1 = k1_tarSKI X0) \Leftrightarrow (\forall X2.(X2 \in X1) \Leftrightarrow (X2 = X0)) \quad (17)$$

Assume the following.

$$\forall X0.(v4_funct_1 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 X0) \Rightarrow (v1_relat_1 X1) \wedge (v1_funct_1 X1)) \quad (18)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1))) \Rightarrow (v1_relat_1 X2) \quad (19)$$

Theorem 1

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 (k4_card_3 (k3_relat_1 k4_scmfSA_1 \\ & k5_scmfSA_1))) \Rightarrow (\forall X1.(m2_subset_1 X1 k1_scmfSA_1 k2_scmfSA_1) \Rightarrow \\ & (\forall X2.(v1_int_1 X2) \Rightarrow (k1_funct_1 (k7_scmfSA_1 X0 X1 X2) k5_numbers = \\ & k1_funct_1 X0 k5_numbers))) \end{aligned}$$