

t27_scmfsa_1

(TMGst5qp6R33d68nmiWAPMuJw8ErksMn7R9)

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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 $k3_scmfsa_1 : \iota$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_numbers : \iota$ be given. Let $k9_scmfsa_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_scmfsa_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k16_funcop_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k1_funct_4 : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k7_funcop_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_scmfsa_i : \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v4_funct_1 : \iota \Rightarrow o$ 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 $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. k1_funct_1 (k16_funcop_1 X0 X1) X0 = X1 \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((v1_relat_1 X1) \wedge (v1_funct_1 X1)) \Rightarrow (\forall X2. \\ & ((v1_relat_1 X2) \wedge (v1_funct_1 X2)) \Rightarrow ((X0 \in k9_xtuple_0 X1) \Rightarrow (k1_funct_1 \\ & (k1_funct_4 X2 X1) X0 = k1_funct_1 X1 X0))) \end{aligned} \quad (2)$$

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.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 X1) \wedge \\ & (m1_subset_1 X1 (k1_zfmisc_1 X0)))) \Rightarrow (\forall X2. (m2_subset_1 \\ & X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1)) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.(m2_finseq_1 X1 X0)\Leftrightarrow(m1_finseq_1 X1 X0) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 X0 (k4_card_3 (k3_relat_1 k4_scmf_sa_1 k5_scmf_sa_1)))\wedge(m1_subset_1 X1 k3_scmf_sa_1))\Rightarrow(k9_scmf_sa_1 X0 X1 = k1_funct_1 X0 X1) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.k7_funcop_1 X0 X1 = k2_funcop_1 X0 X1 \quad (7)$$

Assume the following.

$$k3_scmf_sa_1 = k1_scmf_sa_i \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.v1_relat_1 (k2_zfmisc_1 X0 X1) \quad (9)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0)\wedge(v1_funct_1 X0))\Rightarrow(v4_funct_1 (k4_card_3 X0)) \quad (10)$$

Assume the following.

$$\forall X0.\forall X1.(((v1_relat_1 X0)\wedge(v1_funct_1 X0))\wedge((v1_relat_1 X1)\wedge(v1_funct_1 X1)))\Rightarrow((v1_relat_1 (k3_relat_1 X0 X1))\wedge(v1_funct_1 (k3_relat_1 X0 X1))) \quad (11)$$

Assume the following.

$$\neg v1_xboole_0 k1_scmf_sa_i \quad (12)$$

Assume the following.

$$\neg v1_xboole_0 k1_scmf_sa_1 \quad (13)$$

Assume the following.

$$\forall X0.\forall X1.(v1_relat_1 (k2_funcop_1 X0 X1))\wedge(v1_funct_1 (k2_funcop_1 X0 X1)) \quad (14)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((m1_subset_1 X0 (k4_card_3 (k3_relat_1 k4_scmf_sa_1 k5_scmf_sa_1)))\wedge(m1_subset_1 X1 k3_scmf_sa_1)\wedge(m1_finseq_1 X2 k4_numbers))\Rightarrow(m1_subset_1 (k8_scmf_sa_1 X0 X1 X2) (k4_card_3 (k3_relat_1 k4_scmf_sa_1 k5_scmf_sa_1))) \quad (15)$$

Assume the following.

$$(v1_relat_1\ k5_scmfsa_1) \wedge ((v4_relat_1\ k5_scmfsa_1\ np_3) \wedge (v1_funct_1\ k5_scmfsa_1) \wedge (v1_partfun1\ k5_scmfsa_1\ np_3)) \quad (16)$$

Assume the following.

$$(v1_funct_1\ k4_scmfsa_1) \wedge ((v1_funct_2\ k4_scmfsa_1\ k1_scmfsa_1\ np_3) \wedge (m1_subset_1\ k4_scmfsa_1\ (k1_zfmisc_1\ (k2_zfmisc_1\ k1_scmfsa_1\ np_3)))) \quad (17)$$

Assume the following.

$$m1_subset_1\ k3_scmfsa_1\ (k1_zfmisc_1\ k1_scmfsa_1) \quad (18)$$

Assume the following.

$$\forall X0.\forall X1.v1_relat_1\ (k3_relat_1\ X0\ X1) \quad (19)$$

Assume the following.

$$\forall X0.\forall X1.k16_funcop_1\ X0\ X1 = k7_funcop_1\ (k1_tarski\ X0)\ X1 \quad (20)$$

Assume the following.

$$\forall X0.(m1_subset_1\ X0\ (k4_card_3\ (k3_relat_1\ k4_scmfsa_1\ k5_scmfsa_1))) \Rightarrow (\forall X1.(m2_subset_1\ X1\ k1_scmfsa_1\ k3_scmfsa_1) \Rightarrow (\forall X2.(m2_finseq_1\ X2\ k4_numbers) \Rightarrow (k8_scmfsa_1\ X0\ X1\ X2 = k1_funct_4\ X0\ (k16_funcop_1\ X1\ X2)))) \quad (21)$$

Assume the following.

$$\forall X0.\forall X1.k2_funcop_1\ X0\ X1 = k2_zfmisc_1\ X0\ (k1_tarski\ X1) \quad (22)$$

Assume the following.

$$\forall X0.\forall X1.(X1 = k1_tarski\ X0) \Leftrightarrow (\forall X2.(X2 \in X1) \Leftrightarrow (X2 = X0)) \quad (23)$$

Assume the following.

$$\forall X0.(v4_funct_1\ X0) \Rightarrow (\forall X1.(m1_subset_1\ X1\ X0) \Rightarrow (v1_relat_1\ X1) \wedge (v1_funct_1\ X1)) \quad (24)$$

Assume the following.

$$\forall X0.(v1_relat_1\ X0) \Rightarrow (\forall X1.(m1_subset_1\ X1\ (k1_zfmisc_1\ X0)) \Rightarrow (v1_relat_1\ X1)) \quad (25)$$

Theorem 1

$$\forall X0.(m1_subset_1\ X0\ (k4_card_3\ (k3_relat_1\ k4_scmfsa_1\ k5_scmfsa_1))) \Rightarrow (\forall X1.(m2_subset_1\ X1\ k1_scmfsa_1\ k3_scmfsa_1) \Rightarrow (\forall X2.(m2_finseq_1\ X2\ k4_numbers) \Rightarrow (k9_scmfsa_1\ (k8_scmfsa_1\ X0\ X1\ X2)\ X1 = X2)))$$