

t28_scmfsa_1 (TMHyA- JGjbTX4FYFJfiwWYD8UawCm7f3t3Un)

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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 $k8_scmfsa_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_funct_4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k16_funcop_1 : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $k1_scmfsa_i : \iota$ be given. Let $v4_funct_1 : \iota \Rightarrow o$ be given. Let $v2_relat_1 : \iota \Rightarrow o$ 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. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_funcop_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (\forall X1. \forall X2. \\ & \forall X3.(X1 \neq X3) \Rightarrow (k1_funct_1 (k1_funct_4 X0 (k16_funcop_1 \\ & \quad X1 X2)) X3 = k1_funct_1 X0 X3)) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 X1) \wedge \\ & (m1_subset_1 X1 (k1_zfmisc_1 X0)))) \Rightarrow (\forall X2. (m2_subset_1 \\ & \quad X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1)) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (m2_finseq_1 X1 X0) \Leftrightarrow (m1_finseq_1 X1 X0) \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((m1_subset_1 X0 (k4_card_3 (k3_relat_1 \\ & k4_scmfsa_1 k5_scmfsa_1))) \wedge (m1_subset_1 X1 k3_scmfsa_1)) \Rightarrow (\\ & \quad k9_scmfsa_1 X0 X1 = k1_funct_1 X0 X1) \end{aligned} \quad (4)$$

Assume the following.

$$k3_scmf_sa_1 = k1_scmf_sa_i \quad (5)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (v4_funct_1 (k4_card_3 X0)) \quad (6)$$

Assume the following.

$$(v1_relat_1 (k3_relat_1 k4_scmf_sa_1 k5_scmf_sa_1)) \wedge (v2_relat_1 (k3_relat_1 k4_scmf_sa_1 k5_scmf_sa_1)) \quad (7)$$

Assume the following.

$$\forall X0. \forall X1. (((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \wedge ((v1_relat_1 X1) \wedge (v1_funct_1 X1))) \Rightarrow ((v1_relat_1 (k3_relat_1 X0 X1)) \wedge (v1_funct_1 (k3_relat_1 X0 X1))) \quad (8)$$

Assume the following.

$$\neg v1_xboole_0 k1_scmf_sa_i \quad (9)$$

Assume the following.

$$\neg v1_xboole_0 k1_scmf_sa_1 \quad (10)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((m1_subset_1 X0 (k4_card_3 (k3_relat_1 k4_scmf_sa_1 k5_scmf_sa_1))) \wedge ((m1_subset_1 X1 k3_scmf_sa_1) \wedge (m1_finseq_1 X2 k4_numbers))) \Rightarrow (m1_subset_1 (k8_scmf_sa_1 X0 X1 X2) (k4_card_3 (k3_relat_1 k4_scmf_sa_1 k5_scmf_sa_1))) \quad (11)$$

Assume the following.

$$(v1_relat_1 k5_scmf_sa_1) \wedge ((v4_relat_1 k5_scmf_sa_1 np_3) \wedge (v1_funct_1 k5_scmf_sa_1) \wedge (v1_partfun1 k5_scmf_sa_1 np_3)) \quad (12)$$

Assume the following.

$$(v1_funct_1 k4_scmf_sa_1) \wedge ((v1_funct_2 k4_scmf_sa_1 k1_scmf_sa_1 np_3) \wedge (m1_subset_1 k4_scmf_sa_1 (k1_zfmisc_1 (k2_zfmisc_1 k1_scmf_sa_1 np_3)))) \quad (13)$$

Assume the following.

$$m1_subset_1 k3_scmf_sa_1 (k1_zfmisc_1 k1_scmf_sa_1) \quad (14)$$

Assume the following.

$$\forall X0.\forall X1.k16_funcop_1 X0 X1 = k7_funcop_1 (k1_tarski X0) X1 \quad (15)$$

Assume the following.

$$\begin{aligned} \forall X0.(m1_subset_1 X0 (k4_card_3 (k3_relat_1 k4_scmfsa_1 \\ k5_scmfsa_1))) \Rightarrow (\forall X1.(m2_subset_1 X1 k1_scmfsa_1 k3_scmfsa_1) \Rightarrow \\ (\forall X2.(m2_finseq_1 X2 k4_numbers) \Rightarrow (k8_scmfsa_1 X0 X1 X2 = \\ k1_funct_4 X0 (k16_funcop_1 X1 X2)))) \end{aligned} \quad (16)$$

Assume the following.

$$\forall X0.(v4_funct_1 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 X0) \Rightarrow (v1_relat_1 X1) \wedge (v1_funct_1 X1)) \quad (17)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1))) \Rightarrow (v1_relat_1 X2) \quad (18)$$

Theorem 1

$$\begin{aligned} \forall X0.(m1_subset_1 X0 (k4_card_3 (k3_relat_1 k4_scmfsa_1 \\ k5_scmfsa_1))) \Rightarrow (\forall X1.(m2_subset_1 X1 k1_scmfsa_1 k3_scmfsa_1) \Rightarrow \\ (\forall X2.(m2_finseq_1 X2 k4_numbers) \Rightarrow (\forall X3.(m2_subset_1 \\ X3 k1_scmfsa_1 k3_scmfsa_1) \Rightarrow ((X3 \neq X1) \Rightarrow (k9_scmfsa_1 (k8_scmfsa_1 \\ X0 X1 X2) X3 = k9_scmfsa_1 X0 X3)))))) \end{aligned}$$