

t26_scmfsa_1

(TMU2ykCQxRhmCJ58y7XNQkXRrSZwQC5ptco)

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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 $k3_scmfsa_1 : \iota$ be given. Let $k9_scmfsa_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_scmfsa_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ 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 $k7_funcop_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_funcop_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_scmfsa_i : \iota$ be given. Let $k2_scm_inst : \iota$ be given. Let $k3_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_3 : \iota$ be given. Let $np_2 : \iota$ be given. Let $np_1 : \iota$ 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 $v1_partfun1 : \iota \Rightarrow \iota \Rightarrow o$ 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 $k1_tarski : \iota \Rightarrow \iota$ be given. Assume the following.

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

Assume the following.

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

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((m1_subset_1 X0 (k4_card_3 (k3_relat_1 \\ & k4_scmfsa_1 k5_scmfsa_1))) \wedge (m1_subset_1 X1 k3_scmfsa_1)) \Rightarrow (\\ & k9_scmfsa_1 X0 X1 = k1_funct_1 X0 X1) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. k7_funcop_1 X0 X1 = k2_funcop_1 X0 X1 \quad (4)$$

Assume the following.

$$k3_scmfsa_1 = k1_scmfsa_i \quad (5)$$

Assume the following.

$$k2_scmfsa_1 = k2_scm_inst \quad (6)$$

Assume the following.

$$\forall X0.(m2_subset_1 X0 k1_scmfsa_1 k3_scmfsa_1) \Rightarrow (k3_funct_2 k1_scmfsa_1 np_3 k4_scmfsa_1 X0 = np_2) \quad (7)$$

Assume the following.

$$\forall X0.(m2_subset_1 X0 k1_scmfsa_1 k2_scmfsa_1) \Rightarrow (k3_funct_2 k1_scmfsa_1 np_3 k4_scmfsa_1 X0 = np_1) \quad (8)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (v4_funct_1 (k4_card_3 X0)) \quad (9)$$

Assume the following.

$$(v1_relat_1 (k3_relat_1 k4_scmfsa_1 k5_scmfsa_1)) \wedge (v2_relat_1 (k3_relat_1 k4_scmfsa_1 k5_scmfsa_1)) \quad (10)$$

Assume the following.

$$\neg v1_xboole_0 k1_scmfsa_i \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.(((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \wedge ((v1_relat_1 X1) \wedge (v1_funct_1 X1))) \Rightarrow ((v1_relat_1 (k3_relat_1 X0 X1)) \wedge (v1_funct_1 (k3_relat_1 X0 X1))) \quad (12)$$

Assume the following.

$$\neg v1_xboole_0 k1_scmfsa_1 \quad (13)$$

Assume the following.

$$\neg v1_xboole_0 k2_scm_inst \quad (14)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((m1_subset_1 X0 (k4_card_3 (k3_relat_1 k4_scmfsa_1 k5_scmfsa_1))) \wedge ((m1_subset_1 X1 k2_scmfsa_1) \wedge (v1_int_1 X2))) \Rightarrow (m1_subset_1 (k7_scmfsa_1 X0 X1 X2) (k4_card_3 (k3_relat_1 k4_scmfsa_1 k5_scmfsa_1))) \quad (15)$$

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.

$$m1_subset_1\ k2_scmfsa_1\ (k1_zfmisc_1\ k1_scmfsa_1) \quad (19)$$

Assume the following.

$$\forall X0.\forall X1.k16_funcop_1\ X0\ X1 = k7_funcop_1\ (k1_tarSKI\ X0)\ X1 \quad (20)$$

Assume the following.

$$\forall X0.(m1_subset_1\ X0\ (k4_card_3\ (k3_relat_1\ k4_scmfsa_1\ k5_scmfsa_1))) \Rightarrow (\forall X1.(m2_subset_1\ X1\ k1_scmfsa_1\ k2_scmfsa_1) \Rightarrow (\forall X2.(v1_int_1\ X2) \Rightarrow (k7_scmfsa_1\ X0\ X1\ X2 = k1_funct_4\ X0\ (k16_funcop_1\ X1\ X2)))) \quad (21)$$

Assume the following.

$$\forall X0.\forall X1.k2_funcop_1\ X0\ X1 = k2_zfmisc_1\ X0\ (k1_tarSKI\ X1) \quad (22)$$

Assume the following.

$$\forall X0.(v4_funct_1\ X0) \Rightarrow (\forall X1.(m1_subset_1\ X1\ X0) \Rightarrow (v1_relat_1\ X1) \wedge (v1_funct_1\ X1)) \quad (23)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1_subset_1\ X2\ (k1_zfmisc_1\ (k2_zfmisc_1\ X0\ X1))) \Rightarrow (v1_relat_1\ X2) \quad (24)$$

Theorem 1

$$\forall X0.(m1_subset_1\ X0\ (k4_card_3\ (k3_relat_1\ k4_scmfsa_1\ k5_scmfsa_1))) \Rightarrow (\forall X1.(m2_subset_1\ X1\ k1_scmfsa_1\ k2_scmfsa_1) \Rightarrow (\forall X2.(v1_int_1\ X2) \Rightarrow (\forall X3.(m2_subset_1\ X3\ k1_scmfsa_1\ k3_scmfsa_1) \Rightarrow (k9_scmfsa_1\ (k7_scmfsa_1\ X0\ X1\ X2)\ X3 = k9_scmfsa_1\ X0\ X3)))) \quad (25)$$