

t33_scmfsa_1
(TMPzpkZLdK8U5ZySeg1NveLybRiJJrtvjkB)

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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 $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k1_scmfsa_1 : \iota$ 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 $v2_relat_1 : \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ 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. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} \forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (\forall X1.((\\ v1_relat_1 X1) \wedge (v1_funct_1 X1)) \Rightarrow ((X0 \in k4_card_3 X1) \Leftrightarrow ((k9_xtuple_0 \\ X0 = k9_xtuple_0 X1) \wedge (\forall X2.(X2 \in k9_xtuple_0 X1) \Rightarrow (k1_funct_1 \\ X0 X2 \in k1_funct_1 X1 X2)))))) \end{aligned} \quad (1)$$

Assume the following.

$$k9_xtuple_0 (k3_relat_1 k4_scmfsa_1 k5_scmfsa_1) = k1_scmfsa_1 \quad (2)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge ((v2_relat_1 X0) \wedge (v1_funct_1 X0))) \Rightarrow (\neg v1_xboole_0 (k4_card_3 X0)) \quad (3)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (v4_funct_1 (k4_card_3 X0)) \quad (4)$$

Assume the following.

$$(v1_relat_1 (k3_relat_1 k4_scmfsa_1 k5_scmfsa_1)) \wedge (v2_relat_1 (k3_relat_1 k4_scmfsa_1 k5_scmfsa_1)) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.(((v1_relat_1 X0)\wedge(v1_funct_1 X0))\wedge((v1_relat_1 X1)\wedge(v1_funct_1 X1)))\Rightarrow((v1_relat_1 (k3_relat_1 X0 X1))\wedge(v1_funct_1 (k3_relat_1 X0 X1))) \quad (6)$$

Assume the following.

$$(v1_relat_1 k5_scmfsa_1)\wedge((v4_relat_1 k5_scmfsa_1 np_3)\wedge(v1_funct_1 k5_scmfsa_1)\wedge(v1_partfun1 k5_scmfsa_1 np_3)) \quad (7)$$

Assume the following.

$$(v1_funct_1 k4_scmfsa_1)\wedge((v1_funct_2 k4_scmfsa_1 k1_scmfsa_1 np_3)\wedge(m1_subset_1 k4_scmfsa_1 (k1_zfmisc_1 (k2_zfmisc_1 k1_scmfsa_1 np_3)))) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1_xboole_0 X0)\Rightarrow((m1_subset_1 X1 X0)\Leftrightarrow (X1 \in X0)))\wedge((v1_xboole_0 X0)\Rightarrow((m1_subset_1 X1 X0)\Leftrightarrow (v1_xboole_0 X1))) \quad (9)$$

Assume the following.

$$\forall X0.(v4_funct_1 X0)\Rightarrow(\forall X1.(m1_subset_1 X1 X0)\Rightarrow((v1_relat_1 X1)\wedge(v1_funct_1 X1))) \quad (10)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))\Rightarrow(v1_relat_1 X2) \quad (11)$$

Theorem 1

$$\forall X0.(m1_subset_1 X0 (k4_card_3 (k3_relat_1 k4_scmfsa_1 k5_scmfsa_1)))\Rightarrow(k9_xtuple_0 X0 = k1_scmfsa_1)$$