

t12_ami_2 (TMWWX-
osb45wRwcPiw8feot9XqhWbAQ9fC7d)

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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 $k3_ami_2 : \iota$ be given. Let $k4_ami_2 : \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_ami_2 : \iota$ be given. Let $k2_ami_2 : \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_ami_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_numbers : \iota$ be given. Let $k5_numbers : \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ 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 $k2_scm_inst : \iota$ be given. Let $v4_funct_1 : \iota \Rightarrow o$ be given. Let $v2_relat_1 : \iota \Rightarrow o$ be given. Let $k16_funcop_1 : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np_2 : \iota$ be given. Let $v1_partfun1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_ami_2) \Rightarrow ((X0 \in k2_ami_2) \Rightarrow (k1_funct_1 (k3_relat_1 k3_ami_2 k4_ami_2) X0 = k4_numbers)) \quad (1)$$

Assume the following.

$$k1_funct_1 (k3_relat_1 k3_ami_2 k4_ami_2) k5_numbers = k5_numbers \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((X0 \in X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 X2))) \Rightarrow (m1_subset_1 X0 X2) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.(m1_subset_1 X0 X1) \Rightarrow ((v1_xboole_0 X1) \vee (X0 \in X1)) \quad (4)$$

Assume the following.

$$k5_numbers \neq k4_numbers \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.(k9_xtuple_0 (k2_funcop_1 X0 X1) = X0) \wedge (r1_tarski (k10_xtuple_0 (k2_funcop_1 X0 X1)) (k1_tarski X1)) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.((v1_relat_1 X1) \wedge (v1_funct_1 X1)) \Rightarrow (\forall X2. ((v1_relat_1 X2) \wedge (v1_funct_1 X2)) \Rightarrow ((\neg X0 \in k9_xtuple_0 X1) \Rightarrow (k1_funct_1 (k1_funct_4 X2 X1) X0 = k1_funct_1 X2 X0))) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 X0)))) \Rightarrow (\forall X2.(m2_subset_1 X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1)) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.k7_funcop_1 X0 X1 = k2_funcop_1 X0 X1 \quad (9)$$

Assume the following.

$$k2_ami_2 = k2_scm_inst \quad (10)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (v4_funct_1 (k4_card_3 X0)) \quad (11)$$

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.

$$(v1_relat_1 (k3_relat_1 k3_ami_2 k4_ami_2)) \wedge (v2_relat_1 (k3_relat_1 k3_ami_2 k4_ami_2)) \quad (13)$$

Assume the following.

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

Assume the following.

$$\neg v1_xboole_0 k1_ami_2 \quad (15)$$

Assume the following.

$$\forall X0.\forall X1.(v1_relat_1 (k16_funcop_1 X0 X1)) \wedge (v1_funct_1 (k16_funcop_1 X0 X1)) \quad (16)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (v1_funct_1 (k7_funcop_1 X0 X1)) \wedge ((v1_funct_2 \\ & (k7_funcop_1 X0 X1) X0 (k1_tarSKI X1)) \wedge (m1_subset_1 (k7_funcop_1 \\ & X0 X1) (k1_zfmisc_1 (k2_zfmisc_1 X0 (k1_tarSKI X1)))))) \end{aligned} \quad (17)$$

Assume the following.

$$(v1_relat_1 k4_ami_2) \wedge ((v4_relat_1 k4_ami_2 np_2) \wedge ((v1_funct_1 k4_ami_2) \wedge (v1_partfun1 k4_ami_2 np_2))) \quad (18)$$

Assume the following.

$$\begin{aligned} & (v1_funct_1 k3_ami_2) \wedge ((v1_funct_2 k3_ami_2 k1_ami_2 np_2) \wedge \\ & (m1_subset_1 k3_ami_2 (k1_zfmisc_1 (k2_zfmisc_1 k1_ami_2 np_2)))) \end{aligned} \quad (19)$$

Assume the following.

$$m1_subset_1 k2_ami_2 (k1_zfmisc_1 k1_ami_2) \quad (20)$$

Assume the following.

$$\forall X0. \forall X1. k16_funcop_1 X0 X1 = k7_funcop_1 (k1_tarSKI X0) X1 \quad (21)$$

Assume the following.

$$\begin{aligned} & \forall X0. (m1_subset_1 X0 (k4_card_3 (k3_relat_1 k3_ami_2 k4_ami_2))) \Rightarrow \\ & (\forall X1. (v7_ordinal1 X1) \Rightarrow (k6_ami_2 X0 X1 = k1_funct_4 X0 (k16_funcop_1 \\ & k5_numbers X1))) \end{aligned} \quad (22)$$

Assume the following.

$$\forall X0. \forall X1. k2_funcop_1 X0 X1 = k2_zfmisc_1 X0 (k1_tarSKI X1) \quad (23)$$

Assume the following.

$$\forall X0. \forall X1. (X1 = k1_tarSKI X0) \Leftrightarrow (\forall X2. (X2 \in X1) \Leftrightarrow (X2 = X0)) \quad (24)$$

Assume the following.

$$\forall X0. (v4_funct_1 X0) \Rightarrow (\forall X1. (m1_subset_1 X1 X0) \Rightarrow ((v1_relat_1 X1) \wedge (v1_funct_1 X1))) \quad (25)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1))) \Rightarrow (v1_relat_1 X2) \quad (26)$$

Theorem 1

$$\begin{aligned} & \forall X0. (m1_subset_1 X0 (k4_card_3 (k3_relat_1 k3_ami_2 k4_ami_2))) \Rightarrow \\ & (\forall X1. (v7_ordinal1 X1) \Rightarrow (\forall X2. (m2_subset_1 X2 k1_ami_2 \\ & k2_ami_2) \Rightarrow (k1_funct_1 (k6_ami_2 X0 X1) X2 = k1_funct_1 X0 X2))) \end{aligned}$$