

t3_scm_1 (TMGhsaoU- FutZ2UuXw4NaYDoQrPHvXNR4h5F)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_compos_1 : \iota \Rightarrow \iota$ be given. Let $k1_ami_3 : \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $v5_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_partfun1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_ordinal4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_afinsq_1 : \iota \Rightarrow \iota$ be given. Let $k3_compos_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $np_1 : \iota$ be given. Let $np_2 : \iota$ be given. Let $k2_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $v5_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $k6_afinsq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_afinsq_1 : \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $l1_compos_1 : \iota \Rightarrow o$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k1_card_1 : \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $l1_extpro_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l1_memstr_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_extpro_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$np_2 = k2_tarski\ k1_xboole_0\ np_1 \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. ((v1_relat_1\ X2) \wedge ((v5_ordinal1 \\ & X2) \wedge ((v1_funct_1\ X2) \wedge (v1_finset_1\ X2)))) \Rightarrow ((X2 = k6_afinsq_1 \\ & X0\ X1) \Leftrightarrow ((k1_afinsq_1\ X2 = np_2) \wedge ((k1_funct_1\ X2\ k6_numbers = X0) \wedge \\ & (k1_funct_1\ X2\ np_1 = X1)))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((v1_relat_1\ X0) \wedge (v1_funct_1\ X0)) \Rightarrow (\forall X1. ((\\ & v1_relat_1\ X1) \wedge (v1_funct_1\ X1)) \Rightarrow ((r1_tarski\ X0\ X1) \Leftrightarrow ((r1_tarski \\ & (k9_xtuple_0\ X0)\ (k9_xtuple_0\ X1)) \wedge (\forall X2. (X2 \in k9_xtuple_0 \\ & X0) \Rightarrow (k1_funct_1\ X0\ X2 = k1_funct_1\ X1\ X2)))))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & ((v2_xxreal_0\ np_1) \wedge (m2_subset_1\ np_1\ k1_numbers\ k5_numbers)) \wedge \\ & ((m1_subset_1\ np_1\ k5_numbers) \wedge (m1_subset_1\ np_1\ k1_numbers)) \end{aligned} \quad (4)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (5)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (6)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.\forall X2.((l1_compos_1 X0)\wedge(((v1_relat_1 \\ X1)\wedge((v4_relat_1 X1 k5_numbers)\wedge((v5_relat_1 X1 (u1_compos_1 \\ X0))\wedge((v1_funct_1 X1)\wedge(v1_partfun1 X1 k5_numbers))))))\wedge(v7_ordinal1 \\ X2)))\Rightarrow(k3_compos_1 X0 X1 X2 = k1_funct_1 X1 X2) \end{aligned} \quad (7)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0)\wedge((v5_ordinal1 X0)\wedge((v1_funct_1 \\ X0)\wedge(v1_finset_1 X0))))\Rightarrow(k1_afinsq_1 X0 = k1_card_1 X0) \quad (8)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0)\wedge((v5_ordinal1 X0)\wedge((v1_funct_1 \\ X0)\wedge(v1_finset_1 X0))))\Rightarrow(k1_card_1 X0 = k9_xtuple_0 X0) \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.(v1_relat_1 (k6_afinsq_1 X0 X1))\wedge(v1_funct_1 \\ (k6_afinsq_1 X0 X1)) \quad (10)$$

Assume the following.

$$v1_xboole_0 k1_xboole_0 \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.(v5_ordinal1 (k6_afinsq_1 X0 X1))\wedge(v1_finset_1 \\ (k6_afinsq_1 X0 X1)) \quad (12)$$

Assume the following.

$$\forall X0.\forall X1.(l1_extpro_1 X1 X0)\Rightarrow((l1_memstr_0 X1 X0)\wedge \\ (l1_compos_1 X1)) \quad (13)$$

Assume the following.

$$(v1_extpro_1 k1_ami_3 np_2)\wedge(l1_extpro_1 k1_ami_3 np_2) \quad (14)$$

Assume the following.

$$\forall X0.\forall X1.k6_afinsq_1 X0 X1 = k1_ordinal4 (k5_afinsq_1 \\ X0) (k5_afinsq_1 X1) \quad (15)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(X2 = k2_tarSKI X0 X1) \Leftrightarrow (\forall X3. (X3 \in X2) \Leftrightarrow ((X3 = X0) \vee (X3 = X1))) \quad (16)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k4_ordinal1) \Rightarrow (v7_ordinal1 X0) \quad (17)$$

Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (v7_ordinal1 X0) \quad (18)$$

Theorem 1

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 (u1_compos_1 k1_ami_3)) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (u1_compos_1 k1_ami_3)) \Rightarrow (\forall X2. ((v1_relat_1 \\ & X2) \wedge ((v4_relat_1 X2 k5_numbers) \wedge ((v5_relat_1 X2 (u1_compos_1 \\ & k1_ami_3)) \wedge ((v1_funct_1 X2) \wedge (v1_partfun1 X2 k5_numbers)))))) \Rightarrow \\ & ((r1_tarSKI (k1_ordinal4 (k5_afinsq_1 X0) (k5_afinsq_1 X1)) X2) \Rightarrow \\ & ((k3_compos_1 k1_ami_3 X2 k6_numbers = X0) \wedge (k3_compos_1 k1_ami_3 \\ & X2 np_1 = X1)))))) \end{aligned}$$