

t4_ncfcont1

(TMaDoZ16DUNNn1GKmUbMCqnuL62QqfjTTmF)

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Let $m2_subset.1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k5_numbers : \iota$ be given. Let $v2_struct.0 : \iota \Rightarrow o$ be given. Let $v13_algstr.0 : \iota \Rightarrow o$ be given. Let $v2_rlvect.1 : \iota \Rightarrow o$ be given. Let $v3_rlvect.1 : \iota \Rightarrow o$ be given. Let $v4_rlvect.1 : \iota \Rightarrow o$ be given. Let $v3_normsp.0 : \iota \Rightarrow o$ be given. Let $v4_normsp.0 : \iota \Rightarrow o$ be given. Let $v2_clvect.1 : \iota \Rightarrow o$ be given. Let $v3_clvect.1 : \iota \Rightarrow o$ be given. Let $v4_clvect.1 : \iota \Rightarrow o$ be given. Let $v5_clvect.1 : \iota \Rightarrow o$ be given. Let $v8_clvect.1 : \iota \Rightarrow o$ be given. Let $l2_clvect.1 : \iota \Rightarrow o$ be given. Let $v1_funct.1 : \iota \Rightarrow o$ be given. Let $v1_funct.2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct.0 : \iota \Rightarrow \iota$ be given. Let $m1_subset.1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc.1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc.1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_relset.1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_relset.1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_normsp.1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_relat.1 : \iota \Rightarrow o$ be given. Let $k10_xtuple.0 : \iota \Rightarrow \iota$ be given. Let $k9_xtuple.0 : \iota \Rightarrow \iota$ be given. Let $k3_relat.1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_funct.1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole.0 : \iota \Rightarrow o$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v5_relat.1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v4_relat.1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l1_struct.0 : \iota \Rightarrow o$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $k1_xboole.0 : \iota$ be given. Let $l2_struct.0 : \iota \Rightarrow o$ be given. Let $l2_normsp.0 : \iota \Rightarrow o$ be given. Let $l1_normsp.0 : \iota \Rightarrow o$ be given. Let $l1_clvect.1 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(v1_relat.1 X0) \Rightarrow (\forall X1.(v1_relat.1 X1) \Rightarrow ((r1_tarski \\ & (k10_xtuple.0 X0) (k9_xtuple.0 X1)) \Rightarrow (k9_xtuple.0 (k3_relat.1 \\ & X0 X1) = k9_xtuple.0 X0))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.((v1_relat.1 X1) \wedge (v1_funct.1 X1)) \Rightarrow (\forall X2. \\ & ((v1_relat.1 X2) \wedge (v1_funct.1 X2)) \Rightarrow ((X0 \in k9_xtuple.0 (k3_relat.1 \\ & X2 X1)) \Leftrightarrow ((X0 \in k9_xtuple.0 X2) \wedge (k1_funct.1 X2 X0 \in k9_xtuple.0 X1)))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.((\neg v1_xboole.0 X0) \wedge ((\neg v1_xboole.0 X1) \wedge \\ & (m1_subset.1 X1 (k1_zfmisc.1 X0)))) \Rightarrow (\forall X2.(m2_subset.1 \\ & X2 X0 X1) \Leftrightarrow (m1_subset.1 X2 X1)) \end{aligned} \quad (3)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.((v1_relat_1 X1)\wedge(v5_relat_1 X1 X0))\Rightarrow(k2_relset_1 X0 X1 = k10_xtuple_0 X1) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.((v1_relat_1 X1)\wedge(v4_relat_1 X1 X0))\Rightarrow(k1_relset_1 X0 X1 = k9_xtuple_0 X1) \quad (6)$$

Assume the following.

$$\begin{aligned} &\forall X0.\forall X1.\forall X2.(((\neg v2_struct_0 X0)\wedge(l1_struct_0 \\ &X0))\wedge(((v1_funct_1 X1)\wedge((v1_funct_2 X1 k5_numbers (u1_struct_0 \\ &X0))\wedge(m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers (u1_struct_0 \\ &X0))))))\wedge(m1_subset_1 X2 k5_numbers)))\Rightarrow(k1_normsp_1 X0 X1 X2 = \\ &k1_funct_1 X1 X2) \end{aligned} \quad (7)$$

Assume the following.

$$(\neg v1_xboole_0 k4_ordinal1)\wedge(v3_ordinal1 k4_ordinal1) \quad (8)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0)\wedge(l1_struct_0 X0))\Rightarrow(\neg v1_xboole_0 (u1_struct_0 X0)) \quad (9)$$

Assume the following.

$$v1_xboole_0 k1_xboole_0 \quad (10)$$

Assume the following.

$$\forall X0.(l2_struct_0 X0)\Rightarrow(l1_struct_0 X0) \quad (11)$$

Assume the following.

$$\forall X0.(l2_normsp_0 X0)\Rightarrow((l1_normsp_0 X0)\wedge(l2_struct_0 X0)) \quad (12)$$

Assume the following.

$$\forall X0.(l2_clvect_1 X0)\Rightarrow((l1_clvect_1 X0)\wedge(l2_normsp_0 X0)) \quad (13)$$

Assume the following.

$$m1_subset_1 k5_numbers (k1_zfmisc_1 k1_numbers) \quad (14)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.((\neg v1_xboole_0 X0)\Rightarrow((m1_subset_1 X1 X0)\Leftrightarrow \\ & (X1 \in X0)))\wedge((v1_xboole_0 X0)\Rightarrow((m1_subset_1 X1 X0)\Leftrightarrow(v1_xboole_0 \\ & X1))) \end{aligned} \quad (15)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 \\ & (k2_zfmisc_1 X0 X1)))\Rightarrow(((X1\neq k1_xboole_0)\Rightarrow((v1_funct_2 X2 X0 \\ & X1)\Leftrightarrow(X0 = k1_relset_1 X0 X2)))\wedge((X1 = k1_xboole_0)\Rightarrow((v1_funct_2 \\ & X2 X0 X1)\Leftrightarrow(X2 = k1_xboole_0)))) \end{aligned} \quad (16)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 \\ & (k2_zfmisc_1 X0 X1)))\Rightarrow((v4_relat_1 X2 X0)\wedge(v5_relat_1 X2 X1)) \end{aligned} \quad (17)$$

Assume the following.

$$\begin{aligned} & \forall X0.(v1_xboole_0 X0)\Rightarrow(\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 \\ & X0))\Rightarrow(v1_xboole_0 X1)) \end{aligned} \quad (18)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 \\ & (k2_zfmisc_1 X0 X1)))\Rightarrow(v1_relat_1 X2) \end{aligned} \quad (19)$$

Theorem 1

$$\begin{aligned} & \forall X0.(m2_subset_1 X0 k1_numbers k5_numbers)\Rightarrow(\forall X1. \\ & ((\neg v2_struct_0 X1)\wedge((v13_algstr_0 X1)\wedge((v2_rlvect_1 X1)\wedge((\\ & v3_rlvect_1 X1)\wedge((v4_rlvect_1 X1)\wedge((v3_normsp_0 X1)\wedge((v4_normsp_0 \\ & X1)\wedge((v2_clvect_1 X1)\wedge((v3_clvect_1 X1)\wedge((v4_clvect_1 X1)\wedge \\ & ((v5_clvect_1 X1)\wedge((v8_clvect_1 X1)\wedge(l2_clvect_1 X1))))))))))\Rightarrow \\ & (\forall X2.((\neg v2_struct_0 X2)\wedge((v13_algstr_0 X2)\wedge((v2_rlvect_1 \\ & X2)\wedge((v3_rlvect_1 X2)\wedge((v4_rlvect_1 X2)\wedge((v3_normsp_0 X2)\wedge \\ & ((v4_normsp_0 X2)\wedge((v2_clvect_1 X2)\wedge((v3_clvect_1 X2)\wedge((v4_clvect_1 \\ & X2)\wedge((v5_clvect_1 X2)\wedge((v8_clvect_1 X2)\wedge(l2_clvect_1 X2))))))))))\Rightarrow \\ & (\forall X3.((v1_funct_1 X3)\wedge((v1_funct_2 X3 k5_numbers (u1_struct_0 \\ & X1))\wedge(m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers (u1_struct_0 \\ & X1))))))\Rightarrow(\forall X4.((v1_funct_1 X4)\wedge(m1_subset_1 X4 (k1_zfmisc_1 \\ & (k2_zfmisc_1 (u1_struct_0 X1) (u1_struct_0 X2))))\Rightarrow((r1_tarski \\ & (k2_relset_1 (u1_struct_0 X1) X3) (k1_relset_1 (u1_struct_0 X1) \\ & X4))\Rightarrow(k1_normsp_1 X1 X3 X0 \in k1_relset_1 (u1_struct_0 X1) X4)))))) \end{aligned}$$