

t5_ncfcont1

(TMHW4AmowLVFFk7cWGRb9k5Bxh2Xxau39Ef)

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Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ 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 $v5_rlvect_1 : \iota \Rightarrow o$ be given. Let $v6_rlvect_1 : \iota \Rightarrow o$ be given. Let $v7_rlvect_1 : \iota \Rightarrow o$ be given. Let $v8_rlvect_1 : \iota \Rightarrow o$ be given. Let $v2_normsp_1 : \iota \Rightarrow o$ be given. Let $l1_normsp_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow o$ 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.

$$\forall X0.\forall X1.((\neg v1_xboole_0 X0)\wedge((\neg v1_xboole_0 X1)\wedge(m1_subset_1 X1 (k1_zfmisc_1 X0))))\Rightarrow(\forall X2.(m2_subset_1 X2 X0 X1)\Leftrightarrow(m1_subset_1 X2 X1)) \quad (3)$$

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.

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

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.

$$\forall X0.\forall X1.\forall X2.(m1_subset_1 \ X2 \ (k1_zfmisc_1 \\ (k2_zfmisc_1 \ X0 \ X1))) \Rightarrow ((v4_relat_1 \ X2 \ X0) \wedge (v5_relat_1 \ X2 \ X1)) \quad (17)$$

Assume the following.

$$\forall X0.(v1_xboole_0 \ X0) \Rightarrow (\forall X1.(m1_subset_1 \ X1 \ (k1_zfmisc_1 \\ X0)) \Rightarrow (v1_xboole_0 \ X1)) \quad (18)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1_subset_1 \ X2 \ (k1_zfmisc_1 \\ (k2_zfmisc_1 \ X0 \ X1))) \Rightarrow (v1_relat_1 \ X2) \quad (19)$$

Theorem 1

$$\begin{aligned} \forall X0.(m2_subset_1 \ X0 \ k1_numbers \ k5_numbers) \Rightarrow (\forall X1. \\ ((\neg v2_struct_0 \ X1) \wedge ((v13_algstr_0 \ X1) \wedge ((v2_rlvect_1 \ X1) \wedge (\\ v3_rlvect_1 \ X1) \wedge ((v4_rlvect_1 \ X1) \wedge ((v3_normsp_0 \ X1) \wedge ((v4_normsp_0 \\ X1) \wedge ((v2_clvect_1 \ X1) \wedge ((v3_clvect_1 \ X1) \wedge ((v4_clvect_1 \ X1) \wedge \\ ((v5_clvect_1 \ X1) \wedge ((v8_clvect_1 \ X1) \wedge (l2_clvect_1 \ X1)))))))))) \Rightarrow \\ (\forall X2.((\neg v2_struct_0 \ X2) \wedge ((v13_algstr_0 \ X2) \wedge ((v2_rlvect_1 \\ X2) \wedge ((v3_rlvect_1 \ X2) \wedge ((v4_rlvect_1 \ X2) \wedge ((v5_rlvect_1 \ X2) \wedge \\ ((v6_rlvect_1 \ X2) \wedge ((v7_rlvect_1 \ X2) \wedge ((v8_rlvect_1 \ X2) \wedge ((v3_normsp_0 \\ X2) \wedge ((v4_normsp_0 \ X2) \wedge ((v2_normsp_1 \ X2) \wedge (l1_normsp_1 \ X2)))))))))) \Rightarrow \\ (\forall X3.((v1_funct_1 \ X3) \wedge ((v1_funct_2 \ X3 \ k5_numbers \ (u1_struct_0 \\ X1)) \wedge (m1_subset_1 \ X3 \ (k1_zfmisc_1 \ (k2_zfmisc_1 \ k5_numbers \ (u1_struct_0 \\ X1)))))) \Rightarrow (\forall X4.((v1_funct_1 \ X4) \wedge (m1_subset_1 \ X4 \ (k1_zfmisc_1 \\ (k2_zfmisc_1 \ (u1_struct_0 \ X1) \ (u1_struct_0 \ X2)))) \Rightarrow ((r1_tarski \\ (k2_relset_1 \ (u1_struct_0 \ X1) \ X3) \ (k1_relset_1 \ (u1_struct_0 \ X1) \\ X4)) \Rightarrow (k1_normsp_1 \ X1 \ X3 \ X0 \in k1_relset_1 \ (u1_struct_0 \ X1) \ X4)))))) \end{aligned}$$