

t1_amistd_5

(TMFUSefGE4WA7izycYjd9jAp96oquDiryaU)

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Let $v1_setfam_1 : \iota \Rightarrow o$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v2_memstr_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3_memstr_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l1_extpro_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_compos_1 : \iota \Rightarrow \iota$ be given. Let $v2_amistd_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k5_numbers : \iota$ be given. Let $k5_compos_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $v3_xxreal_2 : \iota \Rightarrow o$ be given. Let $v4_xxreal_2 : \iota \Rightarrow o$ be given. Let $l1_compos_1 : \iota \Rightarrow o$ be given. Let $v1_compos_0 : \iota \Rightarrow o$ be given. Let $v2_compos_0 : \iota \Rightarrow o$ be given. Let $v3_compos_0 : \iota \Rightarrow o$ be given. Let $v5_compos_0 : \iota \Rightarrow o$ be given. Let $l1_memstr_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k2_compos_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k5_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k7_valued_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_amistd_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v6_membered : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0. \forall X1. ((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 X1) \wedge \\ (m1_subset_1 X1 (k1_zfmisc_1 X0)))) \Rightarrow (\forall X2. (m2_subset_1 \\ X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1)) \end{aligned} \quad (1)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (2)$$

Assume the following.

$$(\neg v1_xboole_0 k4_ordinal1) \wedge (v3_ordinal1 k4_ordinal1) \quad (3)$$

Assume the following.

$$(\neg v3_xxreal_2 k1_numbers) \wedge (\neg v4_xxreal_2 k1_numbers) \quad (4)$$

Assume the following.

$$\begin{aligned} \forall X0. (l1_compos_1 X0) \Rightarrow ((v1_compos_0 (u1_compos_1 X0)) \wedge \\ ((v2_compos_0 (u1_compos_1 X0)) \wedge (v3_compos_0 (u1_compos_1 \\ X0)) \wedge (v5_compos_0 (u1_compos_1 X0)))) \end{aligned} \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.(l1_extpro_1 X1 X0)\Rightarrow((l1_memstr_0 X1 X0)\wedge(l1_compos_1 X1)) \quad (6)$$

Assume the following.

$$m1_subset_1 k5_numbers (k1_zfmisc_1 k1_numbers) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(((\neg v1_xboole_0 X0)\wedge((v1_compos_0 X0)\wedge((v2_compos_0 X0)\wedge(v3_compos_0 X0))))\wedge((m1_subset_1 X1 X0)\wedge(v7_ordinal1 X2)))\Rightarrow(m1_subset_1 (k5_compos_0 X0 X1 X2) X0) \quad (8)$$

Assume the following.

$$\forall X0.(((\neg v1_xboole_0 X0)\wedge((v1_compos_0 X0)\wedge((v2_compos_0 X0)\wedge(v3_compos_0 X0))))\Rightarrow(\forall X1.(m1_subset_1 X1 X0)\Rightarrow(\forall X2.(v7_ordinal1 X2)\Rightarrow(\forall X3.(m1_subset_1 X3 X0)\Rightarrow((X3 = k5_compos_0 X0 X1 X2)\Leftrightarrow((k2_compos_0 X0 X3 = k2_compos_0 X0 X1)\wedge((k2_xtuple_0 X3 = k2_xtuple_0 X1)\wedge(k5_xtuple_0 X3 = k7_valued_1 (k5_xtuple_0 X1) X2)))))))) \quad (9)$$

Assume the following.

$$\forall X0.((\neg v1_setfam_1 X0)\Rightarrow(\forall X1.((\neg v2_struct_0 X1)\wedge((v2_memstr_0 X1 X0)\wedge(l1_extpro_1 X1 X0)))\Rightarrow(\forall X2.(m1_subset_1 X2 (u1_compos_1 X1))\Rightarrow((v2_amistd_1 X2 X0 X1)\Leftrightarrow(v1_amistd_1 (k2_compos_0 (u1_compos_1 X1) X2) X0 X1)))))) \quad (10)$$

Assume the following.

$$\forall X0.(v6_membered X0)\Rightarrow((v6_membered X0)\wedge(v3_xxreal_2 X0)) \quad (11)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k4_ordinal1)\Rightarrow(v7_ordinal1 X0) \quad (12)$$

Assume the following.

$$\forall X0.(v5_compos_0 X0)\Rightarrow(\neg v1_xboole_0 X0) \quad (13)$$

Assume the following.

$$\forall X0.(v1_xboole_0 X0)\Rightarrow(v6_membered X0) \quad (14)$$

Theorem 1

$$\forall X0.((\neg v1_setfam_1 X0)\Rightarrow(\forall X1.((\neg v2_struct_0 X1)\wedge((v2_memstr_0 X1 X0)\wedge((v3_memstr_0 X1 X0)\wedge(l1_extpro_1 X1 X0))))\Rightarrow(\forall X2.(m1_subset_1 X2 (u1_compos_1 X1))\Rightarrow((v2_amistd_1 X2 X0 X1)\Rightarrow(\forall X3.(m2_subset_1 X3 k1_numbers k5_numbers)\Rightarrow(v2_amistd_1 (k5_compos_0 (u1_compos_1 X1) X2 X3) X0 X1))))))$$