

t61_compos_2
(TMW7L8uqXoe7aL5vF1oRbp1RbrMpGsvCxxj)

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Let $v1_amistd.4 : \iota \Rightarrow o$ be given. Let $l1_compos.1 : \iota \Rightarrow o$ be given. Let $v6_compos.0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_compos.1 : \iota \Rightarrow \iota$ be given. Let $m1_subset.1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v4_compos.0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_compos.2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k11_compos.1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole.0 : \iota \Rightarrow o$ be given. Let $k1_xboole.0 : \iota$ be given. Let $k10_xtuple.0 : \iota \Rightarrow \iota$ be given. Let $k7_domain.1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_compos.1 : \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_compos.0 : \iota \Rightarrow o$ be given. Let $v5_compos.0 : \iota \Rightarrow o$ be given. Let $k5_xtuple.0 : \iota \Rightarrow \iota$ be given. Let $k6_compos.0 : \iota \Rightarrow \iota$ be given. Let $v2_compos.0 : \iota \Rightarrow o$ be given. Let $v3_compos.0 : \iota \Rightarrow o$ 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 $v1_finset.1 : \iota \Rightarrow o$ be given. Let $k9_xtuple.0 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(v1_xboole.0 X0) \Rightarrow (X0 = k1_xboole.0) \quad (1)$$

Assume the following.

$$\forall X0.(l1_compos.1 X0) \Rightarrow (\forall X1.(m1_subset.1 X1 (u1_compos.1 X0)) \Rightarrow (k10_xtuple.0 (k11_compos.1 X0 X1) = k7_domain.1 (u1_compos.1 X0) X1 (k2_compos.1 X0))) \quad (2)$$

Assume the following.

$$\forall X0.r1_tarski k1_xboole.0 X0 \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((\neg v1_xboole.0 X0) \wedge ((m1_subset.1 X1 X0) \wedge (m1_subset.1 X2 X0))) \Rightarrow (k7_domain.1 X0 X1 X2 = k2_tarski X1 X2) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.(((v1_compos_0 X0)\wedge(v5_compos_0 X0))\wedge((v4_compos_0 X1 X0)\wedge(m1_subset_1 X1 X0)))\Rightarrow(v1_xboole_0 (k5_xtuple_0 X1)) \quad (5)$$

Assume the following.

$$\forall X0.((v1_compos_0 X0)\wedge(v5_compos_0 X0))\Rightarrow(v4_compos_0 (k6_compos_0 X0) X0) \quad (6)$$

Assume the following.

$$\forall X0.(v1_xboole_0 X0)\Rightarrow(v1_xboole_0 (k10_xtuple_0 X0)) \quad (7)$$

Assume the following.

$$\forall X0.(l1_compos_1 X0)\Rightarrow((v1_compos_0 (u1_compos_1 X0))\wedge((v2_compos_0 (u1_compos_1 X0))\wedge((v3_compos_0 (u1_compos_1 X0))\wedge(v5_compos_0 (u1_compos_1 X0)))))) \quad (8)$$

Assume the following.

$$\forall X0.(l1_compos_1 X0)\Rightarrow(m1_subset_1 (k2_compos_1 X0) (u1_compos_1 X0)) \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.(((l1_compos_1 X0)\wedge(m1_subset_1 X1 (u1_compos_1 X0)))\Rightarrow(((v1_relat_1 (k11_compos_1 X0 X1))\wedge((v4_relat_1 (k11_compos_1 X0 X1) k5_numbers)\wedge((v5_relat_1 (k11_compos_1 X0 X1) (u1_compos_1 X0))\wedge((v1_funct_1 (k11_compos_1 X0 X1))\wedge(v1_finset_1 (k11_compos_1 X0 X1))))))) \quad (10)$$

Assume the following.

$$\forall X0.((v1_amistd_4 X0)\wedge(l1_compos_1 X0))\Rightarrow(\forall X1.(((v1_relat_1 X1)\wedge((v4_relat_1 X1 k5_numbers)\wedge((v5_relat_1 X1 (u1_compos_1 X0))\wedge((v1_funct_1 X1)\wedge(v1_finset_1 X1))))))\Rightarrow(((v1_compos_2 X1 X0)\Leftrightarrow(\forall X2.(m1_subset_1 X2 (u1_compos_1 X0))\Rightarrow(((X2 \in k10_xtuple_0 X1)\Rightarrow(r1_tarski (k10_xtuple_0 (k5_xtuple_0 X2)) (k9_xtuple_0 X1))))))) \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(X2 = k2_tarski X0 X1)\Leftrightarrow(\forall X3.(X3 \in X2)\Leftrightarrow((X3 = X0)\vee(X3 = X1))) \quad (12)$$

Assume the following.

$$\forall X0.(l1_compos_1 X0)\Rightarrow(k2_compos_1 X0 = k6_compos_0 (u1_compos_1 X0)) \quad (13)$$

Assume the following.

$$\forall X0.(v5_compos_0 X0) \Rightarrow (\neg v1_xboole_0 X0) \quad (14)$$

Theorem 1

$$\begin{aligned} & \forall X0.((v1_amistd_4 X0) \wedge (l1_compos_1 X0)) \Rightarrow (\forall X1. \\ & ((v6_compos_0 X1 (u1_compos_1 X0)) \wedge (m1_subset_1 X1 (u1_compos_1 \\ & X0))) \Rightarrow ((v4_compos_0 X1 (u1_compos_1 X0)) \Rightarrow (v1_compos_2 (k11_compos_1 \\ & X0 X1) X0))) \end{aligned}$$