

t67_compos_1 (TMExPLpFPaGHwswEGfajk- MYZFcnkGiKxMgH)

October 27, 2020

Let $l1_compos_1 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_compos_1 : \iota \Rightarrow \iota$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k11_compos_1 : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v5_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $k5_afinsq_1 : \iota \Rightarrow \iota$ be given. Let $k2_afinsq_1 : \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $k1_ordinal4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_compos_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_afinsq_1 : \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ 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 $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $v5_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_compos_1 : \iota \Rightarrow \iota$ be given. Let $k10_compos_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_afinsq_1 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((v1_relat_1 X1) \wedge ((v5_ordinal1 X1) \wedge ((v1_funct_1 X1) \wedge (v1_finset_1 X1)))) \Rightarrow ((X1 = k5_afinsq_1 X0) \Leftrightarrow ((k2_afinsq_1 X1 = np_1) \wedge (k10_xtuple_0 X1 = k1_tarski X0))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((v1_relat_1 X0) \wedge ((v5_ordinal1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finset_1 X0)))) \Rightarrow (\forall X1. ((v1_relat_1 X1) \wedge ((v5_ordinal1 X1) \wedge ((v1_funct_1 X1) \wedge (v1_finset_1 X1)))) \Rightarrow (k10_xtuple_0 (k1_ordinal4 X0 X1) = k2_xboole_0 (k10_xtuple_0 X0) (k10_xtuple_0 X1))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. k2_tarski X0 X1 = k2_xboole_0 (k1_tarski X0) (k1_tarski X1) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. ((l1_compos_1 X0) \wedge (m1_subset_1 X1 (u1_compos_1 X0))) \Rightarrow (k9_compos_1 X0 X1 = k3_afinsq_1 X1) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((\neg v1_xboole_0 X0)\wedge((m1_subset_1 X1 X0)\wedge(m1_subset_1 X2 X0)))\Rightarrow(k7_domain_1 X0 X1 X2 = k2_tarski X1 X2) \quad (5)$$

Assume the following.

$$\forall X0.k5_afinsq_1 X0 = k3_afinsq_1 X0 \quad (6)$$

Assume the following.

$$\forall X0.(v5_ordinal1 (k3_afinsq_1 X0))\wedge(v1_finset_1 (k3_afinsq_1 X0)) \quad (7)$$

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.

$$\forall X0.\forall X1.((l1_compos_1 X0)\wedge(m1_subset_1 X1 (u1_compos_1 X0)))\Rightarrow((v1_relat_1 (k9_compos_1 X0 X1))\wedge((v4_relat_1 (k9_compos_1 X0 X1) k5_numbers)\wedge((v5_relat_1 (k9_compos_1 X0 X1) (u1_compos_1 X0))\wedge((v1_funct_1 (k9_compos_1 X0 X1))\wedge(v1_finset_1 (k9_compos_1 X0 X1)))))) \quad (9)$$

Assume the following.

$$\forall X0.(v1_relat_1 (k5_afinsq_1 X0))\wedge(v1_funct_1 (k5_afinsq_1 X0)) \quad (10)$$

Assume the following.

$$\forall X0.(l1_compos_1 X0)\Rightarrow((v1_relat_1 (k4_compos_1 X0))\wedge((v4_relat_1 (k4_compos_1 X0) k5_numbers)\wedge((v5_relat_1 (k4_compos_1 X0) (u1_compos_1 X0))\wedge((v1_funct_1 (k4_compos_1 X0))\wedge(v1_finset_1 (k4_compos_1 X0)))))) \quad (11)$$

Assume the following.

$$\forall X0.(l1_compos_1 X0)\Rightarrow(m1_subset_1 (k2_compos_1 X0) (u1_compos_1 X0)) \quad (12)$$

Assume the following.

$$\forall X0.(l1_compos_1 X0)\Rightarrow(\forall X1.(m1_subset_1 X1 (u1_compos_1 X0))\Rightarrow(k11_compos_1 X0 X1 = k10_compos_1 X0 (k9_compos_1 X0 X1))) \quad (13)$$

Assume the following.

$$\begin{aligned} \forall X0.(l1_compos_1 X0) \Rightarrow (\forall X1.((v1_relat_1 X1) \wedge ((\\ v4_relat_1 X1 k5_numbers) \wedge ((v5_relat_1 X1 (u1_compos_1 X0)) \wedge \\ ((v1_funct_1 X1) \wedge ((v1_finset_1 X1) \wedge (v1_afinsq_1 X1)))))) \Rightarrow (\\ k10_compos_1 X0 X1 = k1_ordinal4 X1 (k4_compos_1 X0))) \end{aligned} \quad (14)$$

Assume the following.

$$\forall X0.(l1_compos_1 X0) \Rightarrow (k4_compos_1 X0 = k3_afinsq_1 (k2_compos_1 X0)) \quad (15)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1_relat_1 X0) \wedge ((v5_ordinal1 X0) \wedge ((v1_funct_1 \\ X0) \wedge (v1_finset_1 X0)))) \Rightarrow ((v1_relat_1 X0) \wedge ((v5_ordinal1 X0) \wedge \\ ((v1_funct_1 X0) \wedge ((v1_finset_1 X0) \wedge (v1_afinsq_1 X0)))))) \end{aligned} \quad (16)$$

Assume the following.

$$\forall X0.(v5_compos_0 X0) \Rightarrow (\neg v1_xboole_0 X0) \quad (17)$$

Theorem 1

$$\begin{aligned} \forall X0.(l1_compos_1 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_compos_1 \\ X0)) \Rightarrow (k10_xtuple_0 (k11_compos_1 X0 X1) = k7_domain_1 (u1_compos_1 \\ X0) X1 (k2_compos_1 X0))) \end{aligned}$$