

t57_compos_1

(TMU4n6VJqZ41RWZbYdWaVNHsCXjExmFKEJT)

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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 $k6_numbers : \iota$ be given. Let $k2_afinsq_1 : \iota \Rightarrow \iota$ be given. Let $k11_compos_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ 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 $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $v1_afinsq_1 : \iota \Rightarrow o$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_card_1 : \iota \Rightarrow \iota$ be given. Let $np_2 : \iota$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $np_0 : \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v5_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (X0 = k1_xboole_0) \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 \\ X0) \wedge ((v1_finset_1 X0) \wedge (v1_afinsq_1 X0)))))) \Rightarrow (\forall X1.(v7_ordinal1 \\ X1) \Rightarrow ((X1 \in k2_afinsq_1 X0) \Leftrightarrow (\neg r1_xxreal_0 (k5_card_1 X0) X1))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0.(l1_compos_1 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_compos_1 \\ X0)) \Rightarrow (k5_card_1 (k11_compos_1 X0 X1) = np_2)) \quad (3)$$

Assume the following.

$$\begin{aligned} ((v2_xxreal_0 np_1) \wedge (m2_subset_1 np_1 k1_numbers k5_numbers)) \wedge \\ ((m1_subset_1 np_1 k5_numbers) \wedge (m1_subset_1 np_1 k1_numbers)) \end{aligned} \quad (4)$$

Assume the following.

$$(m2_subset_1 np_0 k1_numbers k5_numbers) \wedge ((m1_subset_1 np_0 \\ k5_numbers) \wedge (m1_subset_1 np_0 k1_numbers)) \quad (5)$$

Assume the following.

$$v1_xboole_0 \text{ } np_0 \quad (6)$$

Assume the following.

$$\neg r1_xxreal_0 \text{ } np_2 \text{ } np_1 \quad (7)$$

Assume the following.

$$\neg r1_xxreal_0 \text{ } np_2 \text{ } np_0 \quad (8)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (9)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (10)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. ((l1_compos_1 \text{ } X0) \wedge (m1_subset_1 \text{ } X1 \text{ } (u1_compos_1 \\ X0))) \Rightarrow ((\neg v1_xboole_0 \text{ } (k11_compos_1 \text{ } X0 \text{ } X1)) \wedge ((v1_relat_1 \text{ } (k11_compos_1 \\ X0 \text{ } X1)) \wedge ((v4_relat_1 \text{ } (k11_compos_1 \text{ } X0 \text{ } X1) \text{ } k5_numbers) \wedge ((v5_relat_1 \\ (k11_compos_1 \text{ } X0 \text{ } X1) \text{ } (u1_compos_1 \text{ } X0)) \wedge ((v1_funct_1 \text{ } (k11_compos_1 \\ X0 \text{ } X1)) \wedge ((v1_finset_1 \text{ } (k11_compos_1 \text{ } X0 \text{ } X1)) \wedge (v1_afinsq_1 \text{ } (k11_compos_1 \\ X0 \text{ } X1)))))))))) \end{aligned} \quad (11)$$

Assume the following.

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

Theorem 1

$$\begin{aligned} \forall X0. (l1_compos_1 \text{ } X0) \Rightarrow (\forall X1. (m1_subset_1 \text{ } X1 \text{ } (u1_compos_1 \\ X0)) \Rightarrow ((k6_numbers \in k2_afinsq_1 \text{ } (k11_compos_1 \text{ } X0 \text{ } X1)) \wedge (np_1 \in \\ k2_afinsq_1 \text{ } (k11_compos_1 \text{ } X0 \text{ } X1)))) \end{aligned}$$