

t8_compos_1 (TMcjMUruDxYddYbeaLLuD- SPVjNKTceAUZzM)

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Let $l1_compos_1 : \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ 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 $u1_compos_1 : \iota \Rightarrow \iota$ 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 $v3_compos_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v4_compos_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_card_1 : \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k4_compos_1 : \iota \Rightarrow \iota$ be given. Let $k62_valued_1 : \iota \Rightarrow \iota$ be given. Let $k7_nat_d : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $k1_card_1 : \iota \Rightarrow \iota$ be given. Let $k5_afinsq_1 : \iota \Rightarrow \iota$ be given. Let $k3_afinsq_1 : \iota \Rightarrow \iota$ be given. Let $k11_arytm_3 : \iota$ be given. Let $v5_ordinal1 : \iota \Rightarrow o$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_compos_1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 X0) \wedge ((\neg v1_xboole_0 X0) \wedge ((v1_finset_1 X0) \wedge (v1_afinsq_1 X0)))))) \Rightarrow (k62_valued_1 X0 = k7_nat_d (k5_card_1 X0) np_1) \quad (1)$$

Assume the following.

$$\forall X0.(l1_compos_1 X0) \Rightarrow (k5_card_1 (k4_compos_1 X0) = np_1) \quad (2)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (3)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (4)$$

Assume the following.

$$\forall X0.(v1_finset_1 X0) \Rightarrow (k5_card_1 X0 = k1_card_1 X0) \quad (5)$$

Assume the following.

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

Assume the following.

$$k11_arytm_3 = k1_xboole_0 \quad (7)$$

Assume the following.

$$\forall X0.(l1_compos_1 X0) \Rightarrow (k7_nat_d (k5_card_1 (k4_compos_1 X0)) \text{ np_1} = k6_numbers) \quad (8)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge ((v5_ordinal1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finset_1 X0)))) \Rightarrow (k1_card_1 X0 = k9_xtuple_0 X0) \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.((v1_relat_1 X1) \wedge (v1_funct_1 X1)) \Rightarrow ((X1 = k5_afinsq_1 X0) \Leftrightarrow ((k9_xtuple_0 X1 = \text{np_1}) \wedge (k1_funct_1 X1 \text{ k6_numbers} = X0))) \quad (10)$$

Assume the following.

$$k1_xboole_0 = \text{the } (\lambda X0 : \iota.v1_xboole_0 X0) \quad (11)$$

Assume the following.

$$\forall X0.(l1_compos_1 X0) \Rightarrow (k4_compos_1 X0 = k3_afinsq_1 (k2_compos_1 X0)) \quad (12)$$

Assume the following.

$$\forall X0.(l1_compos_1 X0) \Rightarrow (\forall X1.((\neg v1_xboole_0 X1) \wedge ((v1_relat_1 X1) \wedge ((v4_relat_1 X1 \text{ k5_numbers}) \wedge ((v5_relat_1 X1 (u1_compos_1 X0)) \wedge ((v1_funct_1 X1) \wedge (v1_finset_1 X1))))))) \Rightarrow ((v3_compos_1 X1 X0) \Leftrightarrow (k1_funct_1 X1 (k62_valued_1 X1) = k2_compos_1 X0))) \quad (13)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 \text{ k5_numbers}) \wedge ((v1_funct_1 X0) \wedge ((v1_finset_1 X0) \wedge (v1_afinsq_1 X0))))) \Rightarrow ((v1_relat_1 X0) \wedge ((v5_ordinal1 X0) \wedge (v1_funct_1 X0))) \quad (14)$$

Theorem 1

$$\forall X0.(l1_compos_1 X0) \Rightarrow (\forall X1.((\neg v1_xboole_0 X1) \wedge ((v1_relat_1 X1) \wedge ((v4_relat_1 X1 \text{ k5_numbers}) \wedge ((v5_relat_1 X1 (u1_compos_1 X0)) \wedge ((v1_funct_1 X1) \wedge ((v1_finset_1 X1) \wedge ((v1_afinsq_1 X1) \wedge ((v3_compos_1 X1 X0) \wedge (v4_compos_1 X1 X0)))))))))) \Rightarrow ((k5_card_1 X1 = \text{np_1}) \Rightarrow (X1 = k4_compos_1 X0)))$$