

t12_euclid_9

(TMGJ6RsNRBG6NTRRzCwiM1NMVYWi2FnjUaU)

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Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k14_euclid : \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k4_euclid_9 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k4_card_3 : \iota \Rightarrow \iota$ be given. Let $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ 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 $v1_finseq_1 : \iota \Rightarrow o$ be given. Let $k3_euclid_9 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_card_1 : \iota \Rightarrow \iota$ be given. Let $v1_card_1 : \iota \Rightarrow o$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $v3_card_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (X0 = k1_xboole_0) \tag{1}$$

Assume the following.

$$k4_card_3 k1_xboole_0 = k1_tarski k1_xboole_0 \tag{2}$$

Assume the following.

$$k6_numbers = k1_xboole_0 \tag{3}$$

Assume the following.

$$\forall X0.\exists X1.(m1_finseq_1 X1 X0) \wedge ((v1_relat_1 X1) \wedge (v4_relat_1 X1 k5_numbers) \wedge ((v5_relat_1 X1 X0) \wedge ((v1_funct_1 X1) \wedge ((v1_xboole_0 X1) \wedge ((v1_finset_1 X1) \wedge (v1_finseq_1 X1)))))) \tag{4}$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow ((v1_relat_1 (k3_euclid_9 k1_xboole_0 X0)) \wedge ((v1_funct_1 (k3_euclid_9 k1_xboole_0 X0)) \wedge (v1_xboole_0 (k3_euclid_9 k1_xboole_0 X0)))) \tag{5}$$

Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow ((v1_xboole_0 (k1_card_1 X0)) \wedge (v1_card_1 (k1_card_1 X0))) \tag{6}$$

Assume the following.

$$\forall X0.v1_card_1 (k1_card_1 X0) \quad (7)$$

Assume the following.

$$\begin{aligned} \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 \\ (k14_euclid X0))) \Rightarrow (\forall X2.(v1_xreal_0 X2) \Rightarrow (k4_euclid_9 \\ X0 X1 X2 = k4_card_3 (k3_euclid_9 X1 X2)))) \end{aligned} \quad (8)$$

Assume the following.

$$\forall X0.(v3_card_1 X0 k1_xboole_0) \Rightarrow (v1_xboole_0 X0) \quad (9)$$

Assume the following.

$$\forall X0.((v3_ordinal1 X0) \wedge (v1_finset_1 X0)) \Rightarrow (v7_ordinal1 X0) \quad (10)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 \\ (k14_euclid X0))) \Rightarrow (v3_card_1 X1 X0)) \quad (11)$$

Assume the following.

$$\forall X0.(v1_card_1 X0) \Rightarrow (v3_ordinal1 X0) \quad (12)$$

Theorem 1

$$\begin{aligned} \forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 \\ (k14_euclid k6_numbers))) \Rightarrow (k4_euclid_9 k6_numbers X1 X0 = k1_tarski \\ k1_xboole_0)) \end{aligned}$$