

t75_euclid_8

(TMRLLLtfKGrPC3zgifq6x5cB48zZTiB1FrpV)

October 27, 2020

Let $m2_finseq_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k1_euclid : \iota \Rightarrow \iota$ be given. Let $np_3 : \iota$ be given. Let $k23_rvsum_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_euclid : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_binop_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k4_finseq_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_rvsum_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ 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 $k5_numbers : \iota$ be given. Let $m1_finseq_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_valued_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v6_membered : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X0 (k1_zfmisc_1 X1)) \Leftrightarrow (r1_tarski X0 X1) \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0. (v7_ordinal1 X0) \Rightarrow (\forall X1. (m2_finseq_2 X1 k1_numbers \\ (k4_finseq_2 X0 k1_numbers)) \Rightarrow (\forall X2. (m2_finseq_2 X2 k1_numbers \\ (k4_finseq_2 X0 k1_numbers)) \Rightarrow (\forall X3. (m2_finseq_2 X3 k1_numbers \\ (k4_finseq_2 X0 k1_numbers)) \Rightarrow (k23_rvsum_1 (k5_rvsum_1 X0 X1 X2) \\ X3 = k9_binop_2 (k23_rvsum_1 X1 X3) (k23_rvsum_1 X2 X3)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} ((v2_xxreal_0 np_3) \wedge (m2_subset_1 np_3 k1_numbers k5_numbers)) \wedge \\ ((m1_subset_1 np_3 k5_numbers) \wedge (m1_subset_1 np_3 k1_numbers)) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. r1_tarski X0 X0 \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. (m1_finseq_2 X1 X0) \Rightarrow (\forall X2. (m2_finseq_2 X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1)) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((v7_ordinal1\ X0)\wedge((m1_subset_1\ X1\ (k1_euclid\ X0))\wedge(m1_subset_1\ X2\ (k1_euclid\ X0))))\Rightarrow(k7_euclid\ X0\ X1\ X2 = k1_valued_1\ X1\ X2) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((v7_ordinal1\ X0)\wedge((m1_subset_1\ X1\ (k4_finseq_2\ X0\ k1_numbers))\wedge(m1_subset_1\ X2\ (k4_finseq_2\ X0\ k1_numbers))))\Rightarrow(k5_rsum_1\ X0\ X1\ X2 = k1_valued_1\ X1\ X2) \quad (7)$$

Assume the following.

$$\forall X0.(v7_ordinal1\ X0)\Rightarrow(m1_finseq_2\ (k1_euclid\ X0)\ k1_numbers) \quad (8)$$

Assume the following.

$$\forall X0.(v7_ordinal1\ X0)\Rightarrow(k1_euclid\ X0 = k4_finseq_2\ X0\ k1_numbers) \quad (9)$$

Assume the following.

$$\forall X0.(v6_membered\ X0)\Rightarrow(\forall X1.(m1_subset_1\ X1\ X0)\Rightarrow(v7_ordinal1\ X1)) \quad (10)$$

Assume the following.

$$\forall X0.(m1_subset_1\ X0\ (k1_zfmisc_1\ k5_numbers))\Rightarrow(v6_membered\ X0) \quad (11)$$

Theorem 1

$$\forall X0.(m2_finseq_2\ X0\ k1_numbers\ (k1_euclid\ np_3))\Rightarrow(\forall X1.(m2_finseq_2\ X1\ k1_numbers\ (k1_euclid\ np_3))\Rightarrow(\forall X2.(m2_finseq_2\ X2\ k1_numbers\ (k1_euclid\ np_3))\Rightarrow(k23_rsum_1\ (k7_euclid\ np_3\ X0\ X1)\ X2 = k9_binop_2\ (k23_rsum_1\ X0\ X2)\ (k23_rsum_1\ X1\ X2))))$$