

t43_euclid_8 (TMMaLPbAMFWptmiYL- sqx7WSJmUqBLkpw4S4)

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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 $k7_euclid : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_euclid : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_euclid_8 : \iota$ be given. Let $k9_binop_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_seq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k3_euclid_8 : \iota$ be given. Let $np_2 : \iota$ be given. Let $k4_euclid_8 : \iota$ 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 $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ 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 $k4_ordinal1 : \iota$ be given. Assume the following.

$$\begin{aligned} \forall X0.(m2_finseq_2 X0 k1_numbers (k1_euclid np_3)) \Rightarrow (X0 = & \\ k7_euclid np_3 (k7_euclid np_3 (k9_euclid np_3 k2_euclid_8 & \\ (k1_seq_1 X0 np_1)) (k9_euclid np_3 k3_euclid_8 (k1_seq_1 X0 & \\ np_2))) (k9_euclid np_3 k4_euclid_8 (k1_seq_1 X0 np_3))) & \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.(v7_ordinal1 X1) \Rightarrow (\forall X2.(m2_finseq_2 & \\ X2 k1_numbers (k4_finseq_2 X1 k1_numbers)) \Rightarrow (\forall X3.(m2_finseq_2 & \\ X3 k1_numbers (k4_finseq_2 X1 k1_numbers)) \Rightarrow (k1_seq_1 (k5_rvsum_1 & \\ X1 X2 X3) X0 = k9_binop_2 (k1_seq_1 X2 X0) (k1_seq_1 X3 X0)))) & \end{aligned} \quad (2)$$

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.

$$\begin{aligned} \forall X0.\forall X1.(m1_finseq_2 X1 X0) \Rightarrow (\forall X2.(m2_finseq_2 & \\ X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1)) & \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((v7_ordinal1\ X0)\wedge((m1_subset_1\ X1\ (k1_euclid\ X0))\wedge(m1_subset_1\ X2\ (k1_euclid\ X0))))\Rightarrow(k7_euclid\ X0\ X1\ X2 = k1_valued_1\ X1\ X2) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((v7_ordinal1\ X0)\wedge((m1_subset_1\ X1\ (k4_finseq_2\ X0\ k1_numbers))\wedge(m1_subset_1\ X2\ (k4_finseq_2\ X0\ k1_numbers))))\Rightarrow(k5_rvsum_1\ X0\ X1\ X2 = k1_valued_1\ X1\ X2) \quad (6)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((v7_ordinal1\ X0)\wedge((m1_subset_1\ X1\ (k4_finseq_2\ X0\ k1_numbers))\wedge(m1_subset_1\ X2\ (k4_finseq_2\ X0\ k1_numbers))))\Rightarrow(m2_finseq_2\ (k5_rvsum_1\ X0\ X1\ X2)\ k1_numbers\ (k4_finseq_2\ X0\ k1_numbers)) \quad (8)$$

Assume the following.

$$\forall X0.(v7_ordinal1\ X0)\Rightarrow(m1_finseq_2\ (k1_euclid\ X0)\ k1_numbers) \quad (9)$$

Assume the following.

$$\forall X0.(v7_ordinal1\ X0)\Rightarrow(k1_euclid\ X0 = k4_finseq_2\ X0\ k1_numbers) \quad (10)$$

Assume the following.

$$\forall X0.(m1_subset_1\ X0\ k4_ordinal1)\Rightarrow(v7_ordinal1\ X0) \quad (11)$$

Theorem 1

$$\forall X0.(m2_finseq_2\ X0\ k1_numbers\ (k1_euclid\ np_3))\Rightarrow(\forall X1.\ (m2_finseq_2\ X1\ k1_numbers\ (k1_euclid\ np_3))\Rightarrow(k7_euclid\ np_3\ X0\ X1 = k7_euclid\ np_3\ (k7_euclid\ np_3\ (k9_euclid\ np_3\ k2_euclid_8\ (k9_binop_2\ (k1_seq_1\ X0\ np_1)\ (k1_seq_1\ X1\ np_1))))\ (k9_euclid\ np_3\ k3_euclid_8\ (k9_binop_2\ (k1_seq_1\ X0\ np_2)\ (k1_seq_1\ X1\ np_2))))\ (k9_euclid\ np_3\ k4_euclid_8\ (k9_binop_2\ (k1_seq_1\ X0\ np_3)\ (k1_seq_1\ X1\ np_3))))))$$