

t27_euclid_4 (TMKPqGPgULdVP- NCgx4z1R9uiRGTzvyFwVeW)

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Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. 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 $k23_rvsum_1 : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $k7_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_finseq_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(m2_finseq_2 X1 k1_numbers \\ & (k1_euclid X0)) \Rightarrow (\forall X2.(m2_finseq_2 X2 k1_numbers (k1_euclid \\ & X0)) \Rightarrow (\forall X3.(v1_xreal_0 X3) \Rightarrow (k23_rvsum_1 (k9_euclid X0 \\ & X1 X3) X2 = k4_real_1 X3 (k23_rvsum_1 X1 X2)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(m2_finseq_2 X1 k1_numbers \\ & (k1_euclid X0)) \Rightarrow (\forall X2.(m2_finseq_2 X2 k1_numbers (k1_euclid \\ & X0)) \Rightarrow (\forall X3.(m2_finseq_2 X3 k1_numbers (k1_euclid X0)) \Rightarrow \\ & (k23_rvsum_1 (k7_euclid X0 X1 X2) X3 = k7_real_1 (k23_rvsum_1 X1 \\ & X3) (k23_rvsum_1 X2 X3)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.(m1_finseq_2 X1 X0) \Rightarrow (\forall X2.(m2_finseq_2 X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1)) \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.((v7_ordinal1 X0) \wedge ((m1_subset_1 \\ & X1 (k1_euclid X0)) \wedge (v1_xreal_0 X2))) \Rightarrow (m2_finseq_2 (k9_euclid \\ & X0 X1 X2) k1_numbers (k1_euclid X0)) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (m1_finseq_2 (k1_euclid X0) k1_numbers) \quad (5)$$

Theorem 1

$$\begin{aligned} & \forall X0.(v7_ordinal1\ X0) \Rightarrow (\forall X1.(v1_xreal_0\ X1) \Rightarrow (\forall X2. \\ & (v1_xreal_0\ X2) \Rightarrow (\forall X3.(m2_finseq_2\ X3\ k1_numbers\ (k1_euclid \\ & X0)) \Rightarrow (\forall X4.(m2_finseq_2\ X4\ k1_numbers\ (k1_euclid\ X0)) \Rightarrow \\ & (\forall X5.(m2_finseq_2\ X5\ k1_numbers\ (k1_euclid\ X0)) \Rightarrow (k23_rvsum_1 \\ & (k7_euclid\ X0\ (k9_euclid\ X0\ X3\ X1)\ (k9_euclid\ X0\ X4\ X2))\ X5 = k7_real_1 \\ & (k4_real_1\ X1\ (k23_rvsum_1\ X3\ X5))\ (k4_real_1\ X2\ (k23_rvsum_1\ X4 \\ & X5))))))))) \end{aligned}$$