

t52_euclid_8

(TMK9iy271PfCTtxawirYcAuB6k3QAeGp3mh)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $m2_finseq_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_euclid : \iota \Rightarrow \iota$ be given. Let $np_3 : \iota$ be given. Let $k9_euclid : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_euclid_8 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k11_binop_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_seq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $np_2 : \iota$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(m2_finseq_2 X0 k1_numbers (k1_euclid np_3)) \Rightarrow (\forall X1. \\ & (v1_xreal_0 X1) \Rightarrow (k9_euclid np_3 X0 X1 = k1_euclid_8 (k11_binop_2 \\ & X1 (k1_seq_1 X0 np_1)) (k11_binop_2 X1 (k1_seq_1 X0 np_2)) (k11_binop_2 \\ & X1 (k1_seq_1 X0 np_3)))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (v1_xreal_0 X0) \tag{2}$$

Theorem 1

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (\forall X1.(m2_finseq_2 \\ & X1 k1_numbers (k1_euclid np_3)) \Rightarrow (k9_euclid np_3 X1 X0 = k1_euclid_8 \\ & (k11_binop_2 X0 (k1_seq_1 X1 np_1)) (k11_binop_2 X0 (k1_seq_1 \\ & X1 np_2)) (k11_binop_2 X0 (k1_seq_1 X1 np_3)))) \end{aligned}$$