

t3_euclidp

(TMJrr8Xee59MWGNvtqy3dejkgwQA2vwgXk8)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k5_numbers : \iota$ be given. Let $m2_finseq_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_euclid : \iota \Rightarrow \iota$ be given. Let $k6_euclid : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_euclid : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_real_1 : \iota \Rightarrow \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Assume the following.

$$k5_numbers = k4_ordinal1 \tag{1}$$

Assume the following.

$$\begin{aligned} \forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (\forall X1.(v7_ordinal1 \\ X1) \Rightarrow (\forall X2.(m2_finseq_2 X2 k1_numbers (k1_euclid X1)) \Rightarrow (\\ (k6_euclid X1 (k9_euclid X1 X2 X0) = k9_euclid X1 X2 (k1_real_1 X0)) \wedge \\ (k6_euclid X1 (k9_euclid X1 X2 X0) = k9_euclid X1 (k6_euclid X1 X2) \\ X0)))) \end{aligned} \tag{2}$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k4_ordinal1) \Rightarrow (v7_ordinal1 X0) \tag{3}$$

Theorem 1

$$\begin{aligned} \forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\ X1 k5_numbers) \Rightarrow (\forall X2.(m2_finseq_2 X2 k1_numbers (k1_euclid \\ X1)) \Rightarrow ((k6_euclid X1 (k9_euclid X1 X2 X0) = k9_euclid X1 X2 (k1_real_1 \\ X0)) \wedge (k6_euclid X1 (k9_euclid X1 X2 X0) = k9_euclid X1 (k6_euclid \\ X1 X2) X0)))) \end{aligned}$$