

t19_euclidlp
(TMPnjmKdcAvrWh8KiCv3is2kPB24L9jmxt6)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ 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 $k8_euclid : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_euclid : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_finseq_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.(m2_finseq_2 \\ & X1 k1_numbers (k1_euclid X0)) \Rightarrow (\forall X2.(m2_finseq_2 X2 k1_numbers \\ & (k1_euclid X0)) \Rightarrow (\forall X3.(m2_finseq_2 X3 k1_numbers (k1_euclid \\ & X0)) \Rightarrow (\forall X4.(m2_finseq_2 X4 k1_numbers (k1_euclid X0)) \Rightarrow \\ & (k8_euclid X0 (k7_euclid X0 X1 X2) (k7_euclid X0 X3 X4) = k7_euclid \\ & X0 (k8_euclid X0 X1 X3) (k8_euclid X0 X2 X4)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.(m1_finseq_2 X1 X0) \Rightarrow (\forall X2.(m2_finseq_2 X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1)) \quad (2)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.((v7_ordinal1 X0) \wedge ((m1_subset_1 \\ & X1 (k1_euclid X0)) \wedge (m1_subset_1 X2 (k1_euclid X0)))) \Rightarrow (m2_finseq_2 \\ & (k7_euclid X0 X1 X2) k1_numbers (k1_euclid X0)) \end{aligned} \quad (4)$$

Assume the following.

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

Assume the following.

$$\forall X0.(m1_subset_1 X0 k4_ordinal1) \Rightarrow (v7_ordinal1 X0) \quad (6)$$

Theorem 1

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.(m2_finseq_2 \\ & X1 k1_numbers (k1_euclid X0)) \Rightarrow (\forall X2.(m2_finseq_2 X2 k1_numbers \\ & (k1_euclid X0)) \Rightarrow (\forall X3.(m2_finseq_2 X3 k1_numbers (k1_euclid \\ & X0)) \Rightarrow (\forall X4.(m2_finseq_2 X4 k1_numbers (k1_euclid X0)) \Rightarrow \\ & (\forall X5.(m2_finseq_2 X5 k1_numbers (k1_euclid X0)) \Rightarrow (\forall X6. \\ & (m2_finseq_2 X6 k1_numbers (k1_euclid X0)) \Rightarrow (k8_euclid X0 (k7_euclid \\ & X0 (k7_euclid X0 X1 X2) X3) (k7_euclid X0 (k7_euclid X0 X4 X5) X6) = \\ & k7_euclid X0 (k7_euclid X0 (k8_euclid X0 X1 X4) (k8_euclid X0 X2 X5)) \\ & (k8_euclid X0 X3 X6)))))))))) \end{aligned}$$