

t90_euclidlp
(TML7bUhJecT3bTbGWysF6vWxff96gJHWKFt)

October 27, 2020

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 $k4_euclidlp : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_euclidlp : \iota \Rightarrow \iota$ be given. Let $m1_finseq_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v6_membered : \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. (m1_finseq_2 X1 X0) \Rightarrow (\forall X2. (m2_finseq_2 X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1)) \quad (1)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (2)$$

Assume the following.

$$v6_membered k4_ordinal1 \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. \forall X3. ((m1_subset_1 X0 k5_numbers) \wedge ((m1_subset_1 X1 (k1_euclid X0)) \wedge ((m1_subset_1 X2 (k1_euclid X0)) \wedge (m1_subset_1 X3 (k1_euclid X0)))))) \Rightarrow (m1_subset_1 (k4_euclidlp X0 X1 X2 X3) (k1_zfmisc_1 (k1_euclid X0))) \quad (4)$$

Assume the following.

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

Assume the following.

$$\forall X0. (m1_subset_1 X0 k5_numbers) \Rightarrow (k5_euclidlp X0 = ReplSep (toset (\lambda X1 : \iota. m1_subset_1 X1 (k1_zfmisc_1 (k1_euclid X0)))) (\lambda X1 : \iota. \exists X2. (m2_finseq_2 X2 k1_numbers (k1_euclid X0)) \wedge (\exists X3. (m2_finseq_2 X3 k1_numbers (k1_euclid X0)) \wedge (\exists X4. (m2_finseq_2 X4 k1_numbers (k1_euclid X0)) \wedge (X1 = k4_euclidlp X0 X2 X3 X4)))) (\lambda X1 : \iota. X1)) \quad (6)$$

Assume the following.

$$\forall X0.(v6_membered\ X0) \Rightarrow (\forall X1.(m1_subset_1\ X1\ X0) \Rightarrow (v7_ordinal1\ X1)) \quad (7)$$

Theorem 1

$$\begin{aligned} & \forall X0.(m1_subset_1\ X0\ k5_numbers) \Rightarrow (\forall X1.(m2_finseq_2 \\ & X1\ k1_numbers\ (k1_euclid\ X0)) \Rightarrow (\forall X2.(m2_finseq_2\ X2\ k1_numbers \\ & (k1_euclid\ X0)) \Rightarrow (\forall X3.(m2_finseq_2\ X3\ k1_numbers\ (k1_euclid \\ & X0)) \Rightarrow (k4_euclidp\ X0\ X1\ X2\ X3 \in k5_euclidp\ X0)))) \end{aligned}$$