

t13_euclid_4

(TMXkAEETN2XBo2cfJBtgkzdNtuYzsBYUeQU)

October 27, 2020

Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k1_euclid : \iota \Rightarrow \iota$ be given. Let $v1_euclid_4 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m2_finseq_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k2_euclid_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(v7_ordinal1\ X0) \Rightarrow (\forall X1.(m2_finseq_2\ X1\ k1_numbers \\ & (k1_euclid\ X0)) \Rightarrow (\forall X2.(m2_finseq_2\ X2\ k1_numbers\ (k1_euclid \\ & X0)) \Rightarrow ((X1 \in k2_euclid_4\ X0\ X1\ X2) \wedge (X2 \in k2_euclid_4\ X0\ X1\ X2)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.(v7_ordinal1\ X0) \Rightarrow (\forall X1.(m1_subset_1\ X1\ (k1_zfmisc_1 \\ & (k1_euclid\ X0))) \Rightarrow ((v1_euclid_4\ X1\ X0) \Leftrightarrow (\exists X2.(m2_finseq_2 \\ & X2\ k1_numbers\ (k1_euclid\ X0)) \wedge (\exists X3.(m2_finseq_2\ X3\ k1_numbers \\ & (k1_euclid\ X0)) \wedge ((X2 \neq X3) \wedge (X1 = k2_euclid_4\ X0\ X2\ X3)))))) \end{aligned} \quad (2)$$

Theorem 1

$$\begin{aligned} & \forall X0.(v7_ordinal1\ X0) \Rightarrow (\forall X1.(m1_subset_1\ X1\ (k1_zfmisc_1 \\ & (k1_euclid\ X0))) \Rightarrow (\neg(v1_euclid_4\ X1\ X0) \wedge (\forall X2.(m2_finseq_2 \\ & X2\ k1_numbers\ (k1_euclid\ X0)) \Rightarrow (\forall X3.(m2_finseq_2\ X3\ k1_numbers \\ & (k1_euclid\ X0)) \Rightarrow (\neg(X2 \in X1) \wedge ((X3 \in X1) \wedge (X2 \neq X3))))))) \end{aligned}$$