

t30_euclidlp
(TMVy61bk96pTUZh54iQ3KzwUCXZ4WXseQB4)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k1_euclid : \iota \Rightarrow \iota$ be given. Let $m2_finseq_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $v1_euclid_4 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_euclid_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $v6_membered : \iota \Rightarrow o$ be given. Assume the following.

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

Assume the following.

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

Assume the following.

$$v6_membered k4_ordinal1 \tag{3}$$

Assume the following.

$$\forall X0.(v6_membered X0) \Rightarrow (\forall X1.(m1_subset_1 X1 X0) \Rightarrow (v7_ordinal1 X1)) \tag{4}$$

Theorem 1

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\ & X1 (k1_zfmisc_1 (k1_euclid X0))) \Rightarrow (\forall X2.(m2_finseq_2 X2 \\ & k1_numbers (k1_euclid X0)) \Rightarrow (\forall X3.(m2_finseq_2 X3 k1_numbers \\ & (k1_euclid X0)) \Rightarrow (((v1_euclid_4 X1 X0) \wedge ((X2 \in X1) \wedge (X3 \in X1))) \Rightarrow (\\ & (X2 = X3) \vee (X1 = k2_euclid_4 X0 X2 X3)))))) \end{aligned}$$