

t48_euclidlp (TMN-
twJBE2DxiphfHyMhJDTD97EUkFJ7xoQt)

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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 $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k1_euclidlp : \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_euclid_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v6_membered : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X0 X1) \Rightarrow ((v1_xboole_0 X1) \vee (X0 \in X1)) \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0. (v7_ordinal1 X0) \Rightarrow (\forall X1. (m2_finseq_2 X1 k1_numbers \\ (k1_euclid X0)) \Rightarrow (\forall X2. (m2_finseq_2 X2 k1_numbers (k1_euclid \\ X0)) \Rightarrow (\forall X3. (m2_finseq_2 X3 k1_numbers (k1_euclid X0)) \Rightarrow \\ (\forall X4. (m2_finseq_2 X4 k1_numbers (k1_euclid X0)) \Rightarrow (((X1 \in \\ k2_euclid_4 X0 X2 X3) \wedge (X4 \in k2_euclid_4 X0 X2 X3)) \Rightarrow (r1_tarski (k2_euclid_4 \\ X0 X1 X4) (k2_euclid_4 X0 X2 X3))))))))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. ((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 X0)))) \Rightarrow (\forall X2. (m2_subset_1 X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1)) \quad (3)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (4)$$

Assume the following.

$$v6_membered k4_ordinal1 \quad (5)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\neg v1_xboole_0 (k1_euclidlp X0)) \quad (6)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (m1_subset_1 (k1_euclidlp X0) (k1_zfmisc_1 (k1_zfmisc_1 (k1_euclid X0)))) \quad (7)$$

Assume the following.

$$\begin{aligned} \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow & (k1_euclidlp X0 = ReplSep2 \\ & (toset (\lambda X1 : \iota.m2_finseq_2 X1 k1_numbers (k1_euclid X0))) \\ & (\lambda X1 : \iota.toset (\lambda X2 : \iota.m2_finseq_2 X2 k1_numbers (k1_euclid \\ & X0))) (\lambda X1 : \iota.\lambda X2 : \iota.True) (\lambda X1 : \iota.\lambda X2 : \iota. \\ & k2_euclid_4 X0 X1 X2)) \end{aligned} \quad (8)$$

Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 X0)) \Rightarrow (v1_xboole_0 X1)) \quad (9)$$

Assume the following.

$$\forall X0.(v6_membered X0) \Rightarrow (\forall X1.(m1_subset_1 X1 X0) \Rightarrow (v7_ordinal1 X1)) \quad (10)$$

Theorem 1

$$\begin{aligned} \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow & (\forall X1.(m2_finseq_2 \\ & X1 k1_numbers (k1_euclid X0)) \Rightarrow (\forall X2.(m2_finseq_2 X2 k1_numbers \\ & (k1_euclid X0)) \Rightarrow (\forall X3.(m2_subset_1 X3 (k1_zfmisc_1 (k1_euclid \\ & X0)) (k1_euclidlp X0)) \Rightarrow (((X1 \in X3) \wedge (X2 \in X3)) \Rightarrow (r1_tarski (k2_euclid_4 \\ & X0 X1 X2) X3)))))) \end{aligned}$$