

t102_euclidp

(TMQyx9xeoxQREuVt6DKBmsrs273DxuJbqCh)

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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 $k1_euclidp : \iota \Rightarrow \iota$ be given. Let $k5_euclidp : \iota \Rightarrow \iota$ be given. Let $v1_euclid_4 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k2_euclid_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r3_euclidp : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k8_euclid : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_euclidp : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k4_ordinal1 : \iota$ be given. Assume the following.

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

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.(m2_finseq_2 \\ & X1 k1_numbers (k1_euclid X0)) \Rightarrow (\forall X2.(m2_finseq_2 X2 k1_numbers \\ & (k1_euclid X0)) \Rightarrow (\forall X3.(m2_finseq_2 X3 k1_numbers (k1_euclid \\ & X0)) \Rightarrow (\forall X4.(m2_subset_1 X4 (k1_zfmisc_1 (k1_euclid X0)) \\ & (k5_euclidp X0)) \Rightarrow (((X1 \in X4) \wedge ((X2 \in X4) \wedge ((X3 \in X4) \wedge (r3_euclidp \\ & X0 (k8_euclid X0 X2 X1) (k8_euclid X0 X3 X1)))))) \Rightarrow (X4 = k4_euclidp \\ & X0 X1 X2 X3)))))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.(m2_finseq_2 \\ & X1 k1_numbers (k1_euclid X0)) \Rightarrow (\forall X2.(m2_subset_1 X2 (k1_zfmisc_1 \\ & (k1_euclid X0)) (k1_euclidp X0)) \Rightarrow (\neg(\neg X1 \in X2) \wedge ((v1_euclid_4 \\ & X2 X0) \wedge (\forall X3.(m2_finseq_2 X3 k1_numbers (k1_euclid X0)) \Rightarrow \\ & (\forall X4.(m2_finseq_2 X4 k1_numbers (k1_euclid X0)) \Rightarrow (\neg(X2 = \\ & k2_euclid_4 X0 X3 X4) \wedge (r3_euclidp X0 (k8_euclid X0 X1 X3) (k8_euclid \\ & X0 X4 X3)))))))))) \end{aligned} \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((X0 \in X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 X2))) \Rightarrow (m1_subset_1 X0 X2) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.(m1_subset_1 X0 (k1_zfmisc_1 X1)) \Leftrightarrow (r1_tarski X0 X1) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.(m1_subset_1 X0 X1) \Rightarrow ((v1_xboole_0 X1) \vee (X0 \in X1)) \quad (6)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (7)$$

Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Leftrightarrow (\forall X1.\neg X1 \in X0) \quad (8)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k4_ordinal1) \Rightarrow (v7_ordinal1 X0) \quad (9)$$

Theorem 1

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.(m2_finseq_2 \\ & X1 k1_numbers (k1_euclid X0)) \Rightarrow (\forall X2.(m2_subset_1 X2 (k1_zfmisc_1 \\ & (k1_euclid X0)) (k1_euclidlp X0)) \Rightarrow (\forall X3.(m2_subset_1 X3 \\ & (k1_zfmisc_1 (k1_euclid X0)) (k5_euclidlp X0)) \Rightarrow (\forall X4.(\\ & m2_subset_1 X4 (k1_zfmisc_1 (k1_euclid X0)) (k5_euclidlp X0)) \Rightarrow \\ & (((v1_euclid_4 X2 X0) \wedge ((X1 \in X3) \wedge (r1_tarski X2 X3) \wedge ((X1 \in X4) \wedge \\ & (r1_tarski X2 X4)))))) \Rightarrow ((X1 \in X2) \vee (X3 = X4)))))) \end{aligned}$$