

t104_euclidp

(TMYc1uoRhDrHS5tgvU1XhWxknmWnkMwDSLs)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ 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 $k1_euclid : \iota \Rightarrow \iota$ be given. Let $k1_euclidp : \iota \Rightarrow \iota$ be given. Let $v1_euclid_4 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_xboole_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_euclidp : \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_euclidp : \iota \Rightarrow \iota \Rightarrow o$ 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. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.(m2_finseq_2 \\ & X1 k1_numbers (k1_euclid X0)) \Rightarrow (\forall X2.(m2_finseq_2 X2 k1_numbers \\ & (k1_euclid X0)) \Rightarrow (\forall X3.(m2_subset_1 X3 (k1_zfmisc_1 (k1_euclid \\ & X0)) (k5_euclidp X0)) \Rightarrow (((X1 \in X3) \wedge (X2 \in X3)) \Rightarrow (r1_tarski (k2_euclid_4 \\ & X0 X1 X2 X3)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.(m2_subset_1 \\ & X1 (k1_zfmisc_1 (k1_euclid X0)) (k1_euclidp X0)) \Rightarrow (\forall X2. \\ & (m2_subset_1 X2 (k1_zfmisc_1 (k1_euclid X0)) (k1_euclidp X0)) \Rightarrow \\ & (\neg(v1_euclid_4 X1 X0) \wedge ((v1_euclid_4 X2 X0) \wedge ((X1 \neq X2) \wedge (\forall X3. \\ & (m2_finseq_2 X3 k1_numbers (k1_euclid X0)) \Rightarrow (\neg(X3 \in X1) \wedge (\neg X3 \in X2)))))))))) \end{aligned} \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\neg(X0 \in X1) \wedge ((m1_subset_1 X1 (k1_zfmisc_1 X2)) \wedge (v1_xboole_0 X2)) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((X0 \in X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 X2))) \Rightarrow (m1_subset_1 X0 X2) \tag{4}$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.(m2_subset_1 \\ & X1 (k1_zfmisc_1 (k1_euclid X0)) (k1_euclidlp X0)) \Rightarrow (\forall X2. \\ & (m2_subset_1 X2 (k1_zfmisc_1 (k1_euclid X0)) (k1_euclidlp X0)) \Rightarrow \\ & ((\neg(\neg r1_xboole_0 X1 X2) \wedge (\forall X3.(m2_finseq_2 X3 k1_numbers \\ & (k1_euclid X0)) \Rightarrow (\neg(X3 \in X1) \wedge (X3 \in X2)))) \wedge (\neg(\exists X3.(m2_finseq_2 \\ & X3 k1_numbers (k1_euclid X0)) \wedge ((X3 \in X1) \wedge (X3 \in X2))) \wedge (r1_xboole_0 \\ & X1 X2)))))) \end{aligned} \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.(m1_subset_1 X0 (k1_zfmisc_1 X1)) \Leftrightarrow (r1_tarski X0 X1) \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\ & X1 (k1_zfmisc_1 (k1_euclid X0))) \Rightarrow (\forall X2.(m2_finseq_2 X2 \\ & k1_numbers (k1_euclid X0)) \Rightarrow (\forall X3.(m2_finseq_2 X3 k1_numbers \\ & (k1_euclid X0)) \Rightarrow (((v1_euclid_4 X1 X0) \wedge ((X2 \in X1) \wedge (X3 \in X1))) \Rightarrow (\\ & (X2 = X3) \vee (X1 = k2_euclid_4 X0 X2 X3)))))) \end{aligned} \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.(m1_subset_1 X0 X1) \Rightarrow ((v1_xboole_0 X1) \vee (X0 \in X1)) \quad (8)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.(m2_finseq_2 \\ & X1 k1_numbers (k1_euclid X0)) \Rightarrow (\forall X2.(m2_subset_1 X2 (k1_zfmisc_1 \\ & (k1_euclid X0)) (k1_euclidlp X0)) \Rightarrow (\neg(\neg X1 \in X2) \wedge ((v1_euclid_4 \\ & X2 X0) \wedge (\forall X3.(m2_subset_1 X3 (k1_zfmisc_1 (k1_euclid X0)) \\ & (k5_euclidlp X0)) \Rightarrow (\neg(X1 \in X3) \wedge ((r1_tarski X2 X3) \wedge (v1_euclidlp \\ & X3 X0)))))))))) \end{aligned} \quad (9)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\neg v1_xboole_0 (k1_euclidlp X0)) \quad (10)$$

Assume the following.

$$\forall X0.\exists X1.m1_subset_1 X1 X0 \quad (11)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 X1) \wedge \\ & (m1_subset_1 X1 (k1_zfmisc_1 X0)))) \Rightarrow (\forall X2.(m2_subset_1 \\ & X2 X0 X1) \Rightarrow (m1_subset_1 X2 X0)) \end{aligned} \quad (12)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (m1_subset_1 (k1_euclidlp X0) (k1_zfmisc_1 (k1_zfmisc_1 (k1_euclid X0)))) \quad (13)$$

Theorem 1

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.(m2_subset_1 \\ & \quad X1 (k1_zfmisc_1 (k1_euclid X0)) (k1_euclidlp X0)) \Rightarrow (\forall X2. \\ & \quad (m2_subset_1 X2 (k1_zfmisc_1 (k1_euclid X0)) (k1_euclidlp X0)) \Rightarrow \\ & \quad (\neg(v1_euclid_4 X1 X0) \wedge ((v1_euclid_4 X2 X0) \wedge ((X1 \neq X2) \wedge (\neg r1_xboole_0 \\ & \quad X1 X2) \wedge (\forall X3.(m2_subset_1 X3 (k1_zfmisc_1 (k1_euclid X0)) \\ & \quad (k5_euclidlp X0)) \Rightarrow (\neg(r1_tarski X1 X3) \wedge ((r1_tarski X2 X3) \wedge (v1_euclidlp \\ & \quad X3 X0)))))))))) \end{aligned}$$