

t17_jordan

(TMJnhf5HMrAqF5vmwWN9fDZ1t1tRVqHZ1Kx)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $v3_xxreal_0 : \iota \Rightarrow o$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k15_euclid : \iota \Rightarrow \iota$ be given. Let $k2_brouwer : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_topreal9 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k12_euclid : \iota \Rightarrow \iota$ be given. Let $k5_algstr_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k6_numbers : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v1_ordinal1 : \iota \Rightarrow o$ be given. Let $v2_ordinal1 : \iota \Rightarrow o$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $v1_int_1 : \iota \Rightarrow o$ be given. Let $v1_int_2 : \iota \Rightarrow o$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $v1_card_1 : \iota \Rightarrow o$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $v1_rat_1 : \iota \Rightarrow o$ be given. Let $v1_membered : \iota \Rightarrow o$ be given. Let $v2_membered : \iota \Rightarrow o$ be given. Let $v3_membered : \iota \Rightarrow o$ be given. Let $v4_membered : \iota \Rightarrow o$ be given. Let $v5_membered : \iota \Rightarrow o$ be given. Let $v6_membered : \iota \Rightarrow o$ be given. Let $v3_xxreal_2 : \iota \Rightarrow o$ be given. Let $v4_xxreal_2 : \iota \Rightarrow o$ be given. Let $v5_xxreal_2 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.(v1_xreal_0 \\
 & X1) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 (k15_euclid X0))) \Rightarrow \\
 & (\forall X3.(m1_subset_1 X3 (u1_struct_0 (k15_euclid X0))) \Rightarrow (\\
 & (X2 \in k2_topreal9 X0 X3 X1) \Leftrightarrow (r1_xxreal_0 (k12_euclid (k5_algstr_0 \\
 & (k15_euclid X0) X2 X3)) X1))))))
 \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
 & \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.(v1_xreal_0 \\
 & X1) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 (k15_euclid X0))) \Rightarrow \\
 & (u1_struct_0 (k2_brouwer X0 X2 X1) = k2_topreal9 X0 X2 X1)))
 \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0.(m2_subset_1 X0 k1_numbers k5_numbers) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (u1_struct_0 (k15_euclid X0))) \Rightarrow (\forall X2.(\\ & m1_subset_1 X2 (u1_struct_0 (k15_euclid X0))) \Rightarrow ((k12_euclid (\\ & k5_algstr_0 (k15_euclid X0) X1 X2) = k6_numbers) \Leftrightarrow (X1 = X2)))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.(v1_xreal_0 \\ & X1) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 (k15_euclid X0))) \Rightarrow \\ & ((\neg v1_xboole_0 (k2_topreal9 X0 X2 X1)) \Rightarrow (r1_xxreal_0 k6_numbers \\ & X1)))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 X1) \wedge \\ & (m1_subset_1 X1 (k1_zfmisc_1 X0)))) \Rightarrow (\forall X2.(m2_subset_1 \\ & X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1)) \end{aligned} \quad (5)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (6)$$

Assume the following.

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

Assume the following.

$$\begin{aligned} & \exists X0.(m1_subset_1 X0 k5_numbers) \wedge ((\neg v1_xboole_0 X0) \wedge (\\ & (v1_ordinal1 X0) \wedge ((v2_ordinal1 X0) \wedge ((v3_ordinal1 X0) \wedge ((v7_ordinal1 \\ & X0) \wedge ((v1_xcmplx_0 X0) \wedge ((v1_xreal_0 X0) \wedge ((v1_int_1 X0) \wedge ((\neg v1_int_2 \\ & X0) \wedge ((v1_finset_1 X0) \wedge ((v1_card_1 X0) \wedge ((v1_xxreal_0 X0) \wedge ((\\ & \neg v3_xxreal_0 X0) \wedge ((v1_rat_1 X0) \wedge ((v1_membered X0) \wedge ((v2_membered \\ & X0) \wedge ((v3_membered X0) \wedge ((v4_membered X0) \wedge ((v5_membered X0) \wedge \\ & ((v6_membered X0) \wedge ((v3_xxreal_2 X0) \wedge ((v4_xxreal_2 X0) \wedge ((v5_xxreal_2 \\ & X0)))))))))))))))))) \end{aligned} \quad (8)$$

Assume the following.

$$v6_membered k4_ordinal1 \quad (9)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.((v7_ordinal1 X0) \wedge ((m1_subset_1 \\ & X1 (u1_struct_0 (k15_euclid X0))) \wedge ((v1_xreal_0 X2) \wedge (\neg v3_xxreal_0 \\ & X2))) \Rightarrow (\neg v1_xboole_0 (k2_topreal9 X0 X1 X2))) \end{aligned} \quad (10)$$

Assume the following.

$$m1_subset_1 \ k5_numbers \ (k1_zfmisc_1 \ k1_numbers) \quad (11)$$

Assume the following.

$$\forall X0.(v1_xboole_0 \ X0) \Leftrightarrow (\forall X1. \neg X1 \in X0) \quad (12)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. ((\neg v1_xboole_0 \ X0) \Rightarrow ((m1_subset_1 \ X1 \ X0) \Leftrightarrow \\ (X1 \in X0))) \wedge ((v1_xboole_0 \ X0) \Rightarrow ((m1_subset_1 \ X1 \ X0) \Leftrightarrow (v1_xboole_0 \\ X1))) \end{aligned} \quad (13)$$

Assume the following.

$$\forall X0.(v1_xboole_0 \ X0) \Rightarrow (\forall X1.(m1_subset_1 \ X1 \ (k1_zfmisc_1 \ X0)) \Rightarrow (v1_xboole_0 \ X1)) \quad (14)$$

Assume the following.

$$\forall X0.(v6_membered \ X0) \Rightarrow (\forall X1.(m1_subset_1 \ X1 \ X0) \Rightarrow (v7_ordinal1 \ X1)) \quad (15)$$

Theorem 1

$$\begin{aligned} \forall X0.(m1_subset_1 \ X0 \ k5_numbers) \Rightarrow (\forall X1. ((\neg v3_xreal_0 \\ X1) \wedge (v1_xreal_0 \ X1)) \Rightarrow (\forall X2.(m1_subset_1 \ X2 \ (u1_struct_0 \\ (k15_euclid \ X0))) \Rightarrow (m1_subset_1 \ X2 \ (u1_struct_0 \ (k2_brouwer \ X0 \\ X2 \ X1)))))) \end{aligned}$$