

l43_jordan1a

(TMTh2r7kKz8RWgyK1wFrUToFNfwrSrw15Zm)

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Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k15_euclid : \iota \Rightarrow \iota$ be given. Let $np_2 : \iota$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k5_numbers : \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np_1 : \iota$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k1_jordan8 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_jordan1a : \iota \Rightarrow \iota$ be given. Let $k2_matrix_1 : \iota \Rightarrow \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_matrix_1 : \iota \Rightarrow o$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_finseq_2 : \iota \Rightarrow \iota$ be given. Let $k1_matrix_1 : \iota \Rightarrow \iota$ be given. Let $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_finseq_1 : \iota \Rightarrow o$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $k1_nat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_newton : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_3 : \iota$ be given. Let $k3_matrix_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k19_euclid : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_pscomp_1 : \iota \Rightarrow \iota$ be given. Let $k4_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k13_complex1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_pscomp_1 : \iota \Rightarrow \iota$ be given. Let $k5_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_pscomp_1 : \iota \Rightarrow \iota$ be given. Let $k7_pscomp_1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (v7_ordinal1 X1) \Rightarrow (\forall X2. (v7_ordinal1 \\ & X2) \Rightarrow (\forall X3. ((v1_matrix_1 X3) \wedge (m2_finseq_1 X3 (k3_finseq_2 \\ & X0)))) \Rightarrow (((r1_xxreal_0 np_1 X1) \wedge ((r1_xxreal_0 X1 (k3_finseq_1 \\ & X3)) \wedge ((r1_xxreal_0 np_1 X2) \wedge (r1_xxreal_0 X2 (k1_matrix_1 X3)))))) \Rightarrow \\ & (k4_tarski X1 X2 \in k2_matrix_1 X3))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 X1) \wedge \\ & (m1_subset_1 X1 (k1_zfmisc_1 X0)))) \Rightarrow (\forall X2. (m2_subset_1 \\ & X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1)) \end{aligned} \tag{2}$$

Assume the following.

$$\forall X0. \forall X1. (m2_finseq_1 X1 X0) \Leftrightarrow (m1_finseq_1 X1 X0) \tag{3}$$

Assume the following.

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

Assume the following.

$$\begin{aligned} \forall X0.((\neg v1_xboole_0 X0) \wedge (m1_subset_1 X0 (k1_zfmisc_1 (\\ u1_struct_0 (k15_euclid np_2)))))) \Rightarrow (\forall X1.(m2_subset_1 \\ X1 k1_numbers k5_numbers) \Rightarrow ((r1_xxreal_0 np_1 (k1_jordan1a (\\ k1_jordan8 X0 X1))) \wedge (r1_xxreal_0 (k1_jordan1a (k1_jordan8 X0 \\ X1)) (k3_finseq_1 (k1_jordan8 X0 X1)))))) \end{aligned} \quad (5)$$

Assume the following.

$$(\neg v1_xboole_0 k4_ordinal1) \wedge (v3_ordinal1 k4_ordinal1) \quad (6)$$

Assume the following.

$$\neg v1_xboole_0 k1_numbers \quad (7)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1.(m2_finseq_1 X1 X0) \Rightarrow ((v1_funct_1 X1) \wedge (\\ (v1_finseq_1 X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers \\ X0)))))) \end{aligned} \quad (8)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1.(m1_finseq_1 X1 X0) \Rightarrow ((v1_relat_1 X1) \wedge (\\ (v1_funct_1 X1) \wedge (v1_finseq_1 X1))) \end{aligned} \quad (9)$$

Assume the following.

$$m1_subset_1 k5_numbers (k1_zfmisc_1 k1_numbers) \quad (10)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1.((m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 \\ (k15_euclid np_2)))) \wedge (v7_ordinal1 X1)) \Rightarrow ((v1_matrix_1 (k1_jordan8 \\ X0 X1)) \wedge (m2_finseq_1 (k1_jordan8 X0 X1) (k3_finseq_2 (u1_struct_0 \\ (k15_euclid np_2)))))) \end{aligned} \quad (11)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finseq_1 X0))) \Rightarrow \\ (m2_subset_1 (k1_jordan1a X0) k1_numbers k5_numbers) \end{aligned} \quad (12)$$

Assume the following.

$$\begin{aligned}
& \forall X0.(m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 (k15_euclid \\
& \quad np_2)))) \Rightarrow (\forall X1.(v7_ordinal1 X1) \Rightarrow (\forall X2.((v1_matrix_1 \\
& X2) \wedge (m2_finseq_1 X2 (k3_finseq_2 (u1_struct_0 (k15_euclid np_2)))))) \Rightarrow \\
& ((X2 = k1_jordan8 X0 X1) \Leftrightarrow ((k3_finseq_1 X2 = k1_nat_1 (k2_newton \\
& \quad np_2 X1) np_3) \wedge ((k3_finseq_1 X2 = k1_matrix_1 X2) \wedge (\forall X3. \\
& \quad (v7_ordinal1 X3) \Rightarrow (\forall X4.(v7_ordinal1 X4) \Rightarrow ((k4_tarski X3 \\
& \quad X4 \in k2_matrix_1 X2) \Rightarrow (k3_matrix_1 (u1_struct_0 (k15_euclid np_2)) \\
& X2 X3 X4 = k19_euclid (k7_real_1 (k6_pscomp_1 X0) (k4_real_1 (k13_complex1 \\
& \quad (k9_real_1 (k8_pscomp_1 X0) (k6_pscomp_1 X0)) (k2_newton np_2 \\
& X1)) (k5_real_1 X3 np_2))) (k7_real_1 (k9_pscomp_1 X0) (k4_real_1 \\
& \quad (k13_complex1 (k9_real_1 (k7_pscomp_1 X0) (k9_pscomp_1 X0)) (\\
& \quad \quad k2_newton np_2 X1)) (k5_real_1 X4 np_2))))))))))))) \\
& \hspace{15em} (13)
\end{aligned}$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k4_ordinal1) \Rightarrow (v7_ordinal1 X0) \quad (14)$$

Theorem 1

$$\begin{aligned}
& \forall X0.((\neg v1_xboole_0 X0) \wedge (m1_subset_1 X0 (k1_zfmisc_1 (\\
& \quad u1_struct_0 (k15_euclid np_2)))))) \Rightarrow (\forall X1.(m2_subset_1 \\
& X1 k1_numbers k5_numbers) \Rightarrow (\forall X2.(m2_subset_1 X2 k1_numbers \\
& k5_numbers) \Rightarrow (((r1_xxreal_0 np_1 X2) \wedge (r1_xxreal_0 X2 (k3_finseq_1 \\
& \quad (k1_jordan8 X0 X1)))) \Rightarrow (k4_tarski X2 (k1_jordan1a (k1_jordan8 \\
& \quad X0 X1)) \in k2_matrix_1 (k1_jordan8 X0 X1))))))
\end{aligned}$$