

t7_jordan1g (TMNkWkgMrAQGdhohPwotALu-
jnFjMY4qJ4Dq)

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Let $v1_matrix_1 : \iota \Rightarrow o$ be given. Let $v2_goboard1 : \iota \Rightarrow o$ be given. Let $v5_goboard1 : \iota \Rightarrow o$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_finseq_2 : \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k15_euclid : \iota \Rightarrow \iota$ be given. Let $np_2 : \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $k4_tarSKI : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_matrix_1 : \iota \Rightarrow \iota$ be given. Let $k17_euclid : \iota \Rightarrow \iota$ be given. Let $k3_matrix_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np_1 : \iota$ be given. Let $k1_matrix_1 : \iota \Rightarrow \iota$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_finseq_1 : \iota \Rightarrow o$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_ordinal1 : \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_numbers : \iota$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\
 & X1 k5_numbers) \Rightarrow (\forall X2.(m1_subset_1 X2 k5_numbers) \Rightarrow (\forall X3. \\
 & ((v1_matrix_1 X3) \wedge (m2_finseq_1 X3 (k3_finseq_2 (u1_struct_0 \\
 & (k15_euclid np_2)))))) \Rightarrow (\neg(v5_goboard1 X3) \wedge ((r1_xxreal_0 np_1 \\
 & X0) \wedge ((r1_xxreal_0 X0 (k1_matrix_1 X3)) \wedge (r1_xxreal_0 np_1 X1) \wedge \\
 & ((\neg r1_xxreal_0 X2 X1) \wedge (r1_xxreal_0 X2 (k3_finseq_1 X3)) \wedge (r1_xxreal_0 \\
 & (k17_euclid (k3_matrix_1 (u1_struct_0 (k15_euclid np_2)) X3 \\
 & X2 X0)) (k17_euclid (k3_matrix_1 (u1_struct_0 (k15_euclid np_2)) \\
 & X3 X1 X0))))))))))
 \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
 & \forall X0.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge ((v1_finseq_1 \\
 & X0) \wedge (v1_matrix_1 X0)))) \Rightarrow (\forall X1.(v7_ordinal1 X1) \Rightarrow (\forall X2. \\
 & (v7_ordinal1 X2) \Rightarrow ((k4_tarSKI X1 X2 \in k2_matrix_1 X0) \Rightarrow ((r1_xxreal_0 \\
 & np_1 X1) \wedge ((r1_xxreal_0 X1 (k3_finseq_1 X0)) \wedge ((r1_xxreal_0 np_1 \\
 & X2) \wedge (r1_xxreal_0 X2 (k1_matrix_1 X0))))))
 \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\ X1 k5_numbers) \Rightarrow (\forall X2.((v1_matrix_1 X2) \wedge (m2_finseq_1 X2 \\ (k3_finseq_2 (u1_struct_0 (k15_euclid np_2)))))) \Rightarrow (((v2_goboard1 \\ X2) \wedge ((r1_xxreal_0 np_1 X0) \wedge ((r1_xxreal_0 X0 (k1_matrix_1 X2)) \wedge \\ ((r1_xxreal_0 np_1 X1) \wedge (r1_xxreal_0 X1 (k3_finseq_1 X2)))))) \Rightarrow \\ (k17_euclid (k3_matrix_1 (u1_struct_0 (k15_euclid np_2)) X2 \\ X1 X0) = k17_euclid (k3_matrix_1 (u1_struct_0 (k15_euclid np_2)) \\ X2 X1 np_1)))))) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0.(v1_xxreal_0 X0) \Rightarrow (\forall X1.(v1_xxreal_0 X1) \Rightarrow ((\\ (r1_xxreal_0 X0 X1) \wedge (r1_xxreal_0 X1 X0)) \Rightarrow (X0 = X1))) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xxreal_0 X0) \wedge (v1_xxreal_0 X1)) \Rightarrow (\\ r1_xxreal_0 X0 X0) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.(m2_finseq_1 X1 X0) \Leftrightarrow (m1_finseq_1 X1 X0) \quad (6)$$

Assume the following.

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

Assume the following.

$$\forall X0.\forall X1.(m2_finseq_1 X1 X0) \Rightarrow ((v1_funct_1 X1) \wedge (\\ (v1_finseq_1 X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers \\ X0)))))) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.(m1_finseq_1 X1 X0) \Rightarrow ((v1_relat_1 X1) \wedge (\\ (v1_funct_1 X1) \wedge (v1_finseq_1 X1))) \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.(((v1_matrix_1 X1) \wedge \\ (m1_finseq_1 X1 (k3_finseq_2 X0))) \wedge ((v7_ordinal1 X2) \wedge (v7_ordinal1 \\ X3))) \Rightarrow (m1_subset_1 (k3_matrix_1 X0 X1 X2 X3) X0) \quad (10)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\ (m1_subset_1 (k17_euclid X0) k1_numbers) \quad (11)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k4_ordinal1) \Rightarrow (v7_ordinal1 X0) \quad (12)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (v1_xxreal_0 X0) \quad (13)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (v1_xxreal_0 X0) \quad (14)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (v1_xreal_0 X0) \quad (15)$$

Theorem 1

$$\begin{aligned} & \forall X0.((v1_matrix_1 X0) \wedge ((v2_goboard1 X0) \wedge ((v5_goboard1 \\ & X0) \wedge (m2_finseq_1 X0 (k3_finseq_2 (u1_struct_0 (k15_euclid np_2)))))) \Rightarrow \\ & (\forall X1.(m1_subset_1 X1 k5_numbers) \Rightarrow (\forall X2.(m1_subset_1 \\ & X2 k5_numbers) \Rightarrow (\forall X3.(m1_subset_1 X3 k5_numbers) \Rightarrow (\forall X4. \\ & (m1_subset_1 X4 k5_numbers) \Rightarrow (((k4_tarski X1 X3 \in k2_matrix_1 X0) \wedge \\ & ((k4_tarski X2 X4 \in k2_matrix_1 X0) \wedge (k17_euclid (k3_matrix_1 (\\ & u1_struct_0 (k15_euclid np_2)) X0 X1 X3) = k17_euclid (k3_matrix_1 \\ & (u1_struct_0 (k15_euclid np_2)) X0 X2 X4)))) \Rightarrow (X1 = X2)))))) \end{aligned}$$