

t16_jordan9
(TMGZKGVdVU2hv1sLjG7cQVah32tFAxJgeSd)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $v3_relat_1 : \iota \Rightarrow o$ be given. Let $v1_matrix_1 : \iota \Rightarrow o$ be given. Let $v2_goboard1 : \iota \Rightarrow o$ be given. Let $v3_goboard1 : \iota \Rightarrow o$ be given. Let $v4_goboard1 : \iota \Rightarrow o$ 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 $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np_1 : \iota$ be given. Let $k2_nat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k1_matrix_1 : \iota \Rightarrow \iota$ be given. Let $k17_euclid : \iota \Rightarrow \iota$ be given. Let $k3_matrix_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k18_euclid : \iota \Rightarrow \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k1_nat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $v1_xxreal_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. \neg (X0 \in X1) \wedge ((m1_subset_1 X1 (k1_zfmisc_1 X2)) \wedge (v1_xboole_0 X2)) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X0 X1) \Rightarrow ((v1_xboole_0 X1) \vee (X0 \in X1)) \quad (2)$$

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.

$$\begin{aligned} \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\ X1 k5_numbers) \Rightarrow (\forall X2.((v1_matrix_1 X2) \wedge (m2_finseq_1 X2 \\ (k3_finseq_2 (u1_struct_0 (k15_euclid np_2)))))) \Rightarrow (((v3_goboard1 \\ X2) \wedge ((r1_xxreal_0 np_1 X0) \wedge ((r1_xxreal_0 X0 (k1_matrix_1 X2)) \wedge \\ ((r1_xxreal_0 np_1 X1) \wedge (r1_xxreal_0 X1 (k3_finseq_1 X2)))))) \Rightarrow \\ (k18_euclid (k3_matrix_1 (u1_struct_0 (k15_euclid np_2)) X2 \\ X1 X0) = k18_euclid (k3_matrix_1 (u1_struct_0 (k15_euclid np_2)) \\ X2 np_1 X0)))))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(v7_ordinal1 X1) \Rightarrow ((\\ \neg r1_xxreal_0 (k1_nat_1 X1 np_1) X0) \Leftrightarrow (r1_xxreal_0 X0 X1))) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(v7_ordinal1 X1) \Rightarrow (r1_xxreal_0 \\ X0 (k2_xcmplx_0 X0 X1))) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} ((v2_xxreal_0 np_1) \wedge (m2_subset_1 np_1 k1_numbers k5_numbers)) \wedge \\ ((m1_subset_1 np_1 k5_numbers) \wedge (m1_subset_1 np_1 k1_numbers)) \end{aligned} \quad (7)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 X1) \wedge \\ (m1_subset_1 X1 (k1_zfmisc_1 X0)))) \Rightarrow (\forall X2.(m2_subset_1 \\ X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1)) \end{aligned} \quad (8)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (9)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.((m1_subset_1 X0 k5_numbers) \wedge (v7_ordinal1 \\ X1)) \Rightarrow (k2_nat_1 X0 X1 = k2_xcmplx_0 X0 X1) \end{aligned} \quad (10)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.((v7_ordinal1 X0) \wedge (m1_subset_1 X1 k5_numbers)) \Rightarrow \\ (k1_nat_1 X0 X1 = k2_xcmplx_0 X0 X1) \end{aligned} \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.v1_relat_1 (k2_zfmisc_1 X0 X1) \quad (12)$$

Assume the following.

$$(\neg v1_xboole_0 \ k4_ordinal1) \wedge (v3_ordinal1 \ k4_ordinal1) \quad (13)$$

Assume the following.

$$\forall X0. \forall X1. (m2_finseq_1 \ X1 \ X0) \Rightarrow ((v1_funct_1 \ X1) \wedge (v1_finseq_1 \ X1) \wedge (m1_subset_1 \ X1 \ (k1_zfmisc_1 \ (k2_zfmisc_1 \ k5_numbers \ X0)))) \quad (14)$$

Assume the following.

$$m1_subset_1 \ k5_numbers \ (k1_zfmisc_1 \ k1_numbers) \quad (15)$$

Assume the following.

$$\forall X0. ((v1_relat_1 \ X0) \wedge ((v1_funct_1 \ X0) \wedge (v1_finseq_1 \ X0))) \Rightarrow (m2_subset_1 \ (k3_finseq_1 \ X0) \ k1_numbers \ k5_numbers) \quad (16)$$

Assume the following.

$$\forall X0. \forall X1. ((m1_subset_1 \ X0 \ k5_numbers) \wedge (v7_ordinal1 \ X1)) \Rightarrow (m2_subset_1 \ (k2_nat_1 \ X0 \ X1) \ k1_numbers \ k5_numbers) \quad (17)$$

Assume the following.

$$\forall X0. ((v1_relat_1 \ X0) \wedge ((v1_funct_1 \ X0) \wedge ((v1_finseq_1 \ X0) \wedge (v1_matrix_1 \ X0)))) \Rightarrow (m1_subset_1 \ (k1_matrix_1 \ X0) \ k5_numbers) \quad (18)$$

Assume the following.

$$\forall X0. \forall X1. ((v1_xxreal_0 \ X0) \wedge (v1_xxreal_0 \ X1)) \Rightarrow ((r1_xxreal_0 \ X0 \ X1) \vee (r1_xxreal_0 \ X1 \ X0)) \quad (19)$$

Assume the following.

$$\forall X0. \forall X1. ((m1_subset_1 \ X0 \ k5_numbers) \wedge (v7_ordinal1 \ X1)) \Rightarrow (k2_nat_1 \ X0 \ X1 = k2_nat_1 \ X1 \ X0) \quad (20)$$

Assume the following.

$$\forall X0. \forall X1. ((v7_ordinal1 \ X0) \wedge (m1_subset_1 \ X1 \ k5_numbers)) \Rightarrow (k1_nat_1 \ X0 \ X1 = k1_nat_1 \ X1 \ X0) \quad (21)$$

Assume the following.

$$\forall X0. (m1_subset_1 \ X0 \ k4_ordinal1) \Rightarrow (v7_ordinal1 \ X0) \quad (22)$$

Assume the following.

$$\forall X0. (v7_ordinal1 \ X0) \Rightarrow (v1_xxreal_0 \ X0) \quad (23)$$

Assume the following.

$$\forall X0. (v1_relat_1 \ X0) \Rightarrow (\forall X1. (m1_subset_1 \ X1 \ (k1_zfmisc_1 \ X0)) \Rightarrow (v1_relat_1 \ X1)) \quad (24)$$

Theorem 1

$$\begin{aligned}
& \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\
& X1 k5_numbers) \Rightarrow (\forall X2.((\neg v3_relat_1 X2) \wedge ((v1_matrix_1 \\
& X2) \wedge ((v2_goboard1 X2) \wedge ((v3_goboard1 X2) \wedge ((v4_goboard1 X2) \wedge \\
& ((v5_goboard1 X2) \wedge (m2_finseq_1 X2 (k3_finseq_2 (u1_struct_0 \\
& (k15_euclid np_2)))))))))) \Rightarrow (((r1_xxreal_0 np_1 X0) \wedge ((r1_xxreal_0 \\
& (k2_nat_1 X0 np_1) (k3_finseq_1 X2)) \wedge ((r1_xxreal_0 np_1 X1) \wedge \\
& (r1_xxreal_0 (k2_nat_1 X1 np_1) (k1_matrix_1 X2)))))) \Rightarrow ((k17_euclid \\
& (k3_matrix_1 (u1_struct_0 (k15_euclid np_2)) X2 X0 X1) = k17_euclid \\
& (k3_matrix_1 (u1_struct_0 (k15_euclid np_2)) X2 X0 (k2_nat_1 \\
& X1 np_1))) \wedge ((k18_euclid (k3_matrix_1 (u1_struct_0 (k15_euclid \\
& np_2)) X2 X0 X1) = k18_euclid (k3_matrix_1 (u1_struct_0 (k15_euclid \\
& np_2)) X2 (k2_nat_1 X0 np_1) X1)) \wedge ((k17_euclid (k3_matrix_1 \\
& (u1_struct_0 (k15_euclid np_2)) X2 (k2_nat_1 X0 np_1) (k2_nat_1 \\
& X1 np_1)) = k17_euclid (k3_matrix_1 (u1_struct_0 (k15_euclid \\
& np_2)) X2 (k2_nat_1 X0 np_1) X1)) \wedge (k18_euclid (k3_matrix_1 (\\
& u1_struct_0 (k15_euclid np_2)) X2 (k2_nat_1 X0 np_1) (k2_nat_1 \\
& X1 np_1)) = k18_euclid (k3_matrix_1 (u1_struct_0 (k15_euclid \\
& np_2)) X2 X0 (k2_nat_1 X1 np_1)))))))))
\end{aligned}$$