

t8_jordan15 (TMdCEC- CRUx3af7Q4mbELdTpyk65WQSZsKoJ)

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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 $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k1_matrix_1 : \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ 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 $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_rltopsp1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_matrix_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_jordan1a : \iota \Rightarrow \iota$ 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 $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v5_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $v2_finseq_1 : \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
& \forall X0. ((\neg v3_relat_1 X0) \wedge ((v1_matrix_1 X0) \wedge ((v2_goboard1 \\
& X0) \wedge ((v3_goboard1 X0) \wedge ((v4_goboard1 X0) \wedge ((v5_goboard1 X0) \wedge \\
& (m2_finseq_1 X0 (k3_finseq_2 (u1_struct_0 (k15_euclid np_2)))))))))) \Rightarrow \\
& (\forall X1. (m1_subset_1 X1 k5_numbers) \Rightarrow (\forall X2. (m1_subset_1 \\
& X2 k5_numbers) \Rightarrow (\forall X3. (m1_subset_1 X3 k5_numbers) \Rightarrow (\forall X4. \\
& (m1_subset_1 X4 k5_numbers) \Rightarrow (\forall X5. (m1_subset_1 X5 k5_numbers) \Rightarrow \\
& (((r1_xxreal_0 np_1 X1) \wedge ((r1_xxreal_0 X1 (k1_matrix_1 X0)) \wedge \\
& ((r1_xxreal_0 np_1 X2) \wedge ((r1_xxreal_0 X2 X4) \wedge ((r1_xxreal_0 X4 \\
& X5) \wedge ((r1_xxreal_0 X5 X3) \wedge (r1_xxreal_0 X3 (k3_finseq_1 X0)))))))))) \Rightarrow \\
& (r1_tarski (k1_rltopsp1 (k15_euclid np_2) (k3_matrix_1 (u1_struct_0 \\
& (k15_euclid np_2)) X0 X4 X1) (k3_matrix_1 (u1_struct_0 (k15_euclid \\
& np_2)) X0 X5 X1)) (k1_rltopsp1 (k15_euclid np_2) (k3_matrix_1 \\
& (u1_struct_0 (k15_euclid np_2)) X0 X2 X1) (k3_matrix_1 (u1_struct_0 \\
& (k15_euclid np_2)) X0 X3 X1))))))
\end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v3_relat_1 X0) \wedge ((v1_matrix_1 X0) \wedge ((v2_goboard1 \\ X0) \wedge ((v3_goboard1 X0) \wedge ((v4_goboard1 X0) \wedge ((v5_goboard1 X0) \wedge \\ (m2_finseq_1 X0 (k3_finseq_2 (u1_struct_0 (k15_euclid np_2)))))))))) \Rightarrow \\ (r1_xxreal_0 (k1_jordan1a X0) (k3_finseq_1 X0)) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finseq_1 X0))) \Rightarrow \\ (r1_xxreal_0 np_1 (k1_jordan1a X0)) \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 X1) \wedge \\ (m1_subset_1 X1 (k1_zfmisc_1 X0)))) \Rightarrow (\forall X2.(m2_subset_1 \\ X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1)) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.(m2_finseq_1 X1 X0) \Leftrightarrow (m1_finseq_1 X1 X0) \quad (5)$$

Assume the following.

$$\begin{aligned} \forall X0.(\neg v1_xboole_0 X0) \Rightarrow (\exists X1.(m1_finseq_1 X1 X0) \wedge \\ ((v1_relat_1 X1) \wedge ((v4_relat_1 X1 k5_numbers) \wedge ((v5_relat_1 X1 \\ X0) \wedge ((v1_funct_1 X1) \wedge ((\neg v1_xboole_0 X1) \wedge ((v1_finset_1 X1) \wedge \\ ((v1_finseq_1 X1) \wedge (v2_finseq_1 X1)))))))))) \end{aligned} \quad (6)$$

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.

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

Assume the following.

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

Assume the following.

$$\begin{aligned} \forall X0.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finseq_1 X0))) \Rightarrow \\ (m2_subset_1 (k1_jordan1a X0) k1_numbers k5_numbers) \end{aligned} \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.(v1_xboole_0 X0)\Rightarrow(\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))\Rightarrow(v1_xboole_0 X2)) \quad (12)$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v3_relat_1 X0)\wedge((v1_matrix_1 X0)\wedge((v2_goboard1 \\ & X0)\wedge((v3_goboard1 X0)\wedge((v4_goboard1 X0)\wedge((v5_goboard1 X0)\wedge \\ & (m2_finseq_1 X0 (k3_finseq_2 (u1_struct_0 (k15_euclid np_2))))))))))\Rightarrow \\ & ((k3_finseq_1 X0 = k1_matrix_1 X0)\Rightarrow(\forall X1.(m1_subset_1 X1 \\ & k5_numbers)\Rightarrow(\forall X2.(m1_subset_1 X2 k5_numbers)\Rightarrow(\forall X3. \\ & (m1_subset_1 X3 k5_numbers)\Rightarrow(\forall X4.(m1_subset_1 X4 k5_numbers)\Rightarrow \\ & (((r1_xxreal_0 np_1 X1)\wedge((r1_xxreal_0 X1 X3)\wedge((r1_xxreal_0 \\ & X3 X4)\wedge((r1_xxreal_0 X4 X2)\wedge(r1_xxreal_0 X2 (k3_finseq_1 X0))))))\Rightarrow \\ & (r1_tarski (k1_rltopsp1 (k15_euclid np_2) (k3_matrix_1 (u1_struct_0 \\ & (k15_euclid np_2)) X0 X3 (k1_jordan1a X0)) (k3_matrix_1 (u1_struct_0 \\ & (k15_euclid np_2)) X0 X4 (k1_jordan1a X0))) (k1_rltopsp1 (k15_euclid \\ & np_2) (k3_matrix_1 (u1_struct_0 (k15_euclid np_2)) X0 X1 (k1_jordan1a \\ & X0)) (k3_matrix_1 (u1_struct_0 (k15_euclid np_2)) X0 X2 (k1_jordan1a \\ & X0)))))))))) \end{aligned}$$