

t19_jordan1a (TM-
LxxszUw66XRx4iZqDmvwDKVTWVm679TSk)

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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 $v3_relat_1 : \iota \Rightarrow o$ 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 $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k1_matrix_1 : \iota \Rightarrow \iota$ be given. Let $k18_euclid : \iota \Rightarrow \iota$ be given. Let $k3_matrix_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $k13_finseq_1 : \iota \Rightarrow \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(v1_xxreal_0 X0) \Rightarrow (\forall X1.(v1_xxreal_0 X1) \Rightarrow (\forall X2. \\ & (v1_xxreal_0 X2) \Rightarrow (((r1_xxreal_0 X0 X1) \wedge (r1_xxreal_0 X1 X2)) \Rightarrow \\ & (r1_xxreal_0 X0 X2)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\ & X1 k5_numbers) \Rightarrow (\forall X2.((v1_matrix_1 X2) \wedge (m2_finseq_1 X2 \\ & (k3_finseq_2 (u1_struct_0 (k15_euclid np_2)))))) \Rightarrow (((v3_goboard1 \\ & X2) \wedge ((r1_xxreal_0 np_1 X0) \wedge ((r1_xxreal_0 X0 (k1_matrix_1 X2)) \wedge \\ & ((r1_xxreal_0 np_1 X1) \wedge (r1_xxreal_0 X1 (k3_finseq_1 X2)))))) \Rightarrow \\ & (k18_euclid (k3_matrix_1 (u1_struct_0 (k15_euclid np_2)) X2 \\ & X1 X0) = k18_euclid (k3_matrix_1 (u1_struct_0 (k15_euclid np_2)) \\ & X2 np_1 X0)))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m2_subset_1 X0 k1_numbers k5_numbers) \Rightarrow (\forall X1. \\ & (m2_subset_1 X1 k1_numbers k5_numbers) \Rightarrow (\forall X2.(m2_subset_1 \\ & X2 k1_numbers k5_numbers) \Rightarrow (\forall X3.((\neg v3_relat_1 X3) \wedge ((v1_matrix_1 \\ & X3) \wedge ((v2_goboard1 X3) \wedge ((v3_goboard1 X3) \wedge ((v4_goboard1 X3) \wedge \\ & ((v5_goboard1 X3) \wedge (m2_finseq_1 X3 (k3_finseq_2 (u1_struct_0 \\ & (k15_euclid np_2)))))))))) \Rightarrow (((r1_xxreal_0 np_1 X0) \wedge ((r1_xxreal_0 \\ & X0 X1) \wedge ((r1_xxreal_0 X1 (k1_matrix_1 X3)) \wedge ((r1_xxreal_0 np_1 \\ & X2) \wedge (r1_xxreal_0 X2 (k3_finseq_1 X3)))))) \Rightarrow (r1_xxreal_0 (k18_euclid \\ & (k3_matrix_1 (u1_struct_0 (k15_euclid np_2)) X3 X2 X0) (k18_euclid \\ & (k3_matrix_1 (u1_struct_0 (k15_euclid np_2)) X3 X2 X1)))))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & ((v2_xxreal_0 np_1) \wedge (m2_subset_1 np_1 k1_numbers k5_numbers)) \wedge \\ & ((m1_subset_1 np_1 k5_numbers) \wedge (m1_subset_1 np_1 k1_numbers)) \end{aligned} \quad (4)$$

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.

$$k5_numbers = k4_ordinal1 \quad (6)$$

Assume the following.

$$\forall X0.k3_finseq_2 X0 = k13_finseq_1 X0 \quad (7)$$

Assume the following.

$$(\neg v1_xboole_0 k4_ordinal1) \wedge (v3_ordinal1 k4_ordinal1) \quad (8)$$

Assume the following.

$$\neg v1_xboole_0 k1_numbers \quad (9)$$

Assume the following.

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

Assume the following.

$$\forall X0.(m1_subset_1 X0 k4_ordinal1) \Rightarrow (v7_ordinal1 X0) \quad (11)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (v1_xxreal_0 X0) \quad (12)$$

Theorem 1

$$\begin{aligned} & \forall X0.(m2_subset_1 X0 k1_numbers k5_numbers) \Rightarrow (\forall X1. \\ & (m2_subset_1 X1 k1_numbers k5_numbers) \Rightarrow (\forall X2.(m2_subset_1 \\ & X2 k1_numbers k5_numbers) \Rightarrow (\forall X3.(m2_subset_1 X3 k1_numbers \\ & k5_numbers) \Rightarrow (\forall X4.((\neg v3_relat_1 X4) \wedge ((v1_matrix_1 X4) \wedge \\ & ((v2_goboard1 X4) \wedge ((v3_goboard1 X4) \wedge ((v4_goboard1 X4) \wedge ((v5_goboard1 \\ & X4) \wedge (m2_finseq_1 X4 (k3_finseq_2 (u1_struct_0 (k15_euclid np_2)))))))))) \Rightarrow \\ & (((r1_xxreal_0 np_1 X0) \wedge ((r1_xxreal_0 X0 (k3_finseq_1 X4)) \wedge \\ & ((r1_xxreal_0 np_1 X1) \wedge ((r1_xxreal_0 X1 (k3_finseq_1 X4)) \wedge \\ & (r1_xxreal_0 np_1 X2) \wedge ((r1_xxreal_0 X2 X3) \wedge (r1_xxreal_0 X3 (\\ & k1_matrix_1 X4)))))) \Rightarrow (r1_xxreal_0 (k18_euclid (k3_matrix_1 \\ & (u1_struct_0 (k15_euclid np_2)) X4 X0 X2)) (k18_euclid (k3_matrix_1 \\ & (u1_struct_0 (k15_euclid np_2)) X4 X1 X3)))))) \end{aligned}$$