

t33_jordan3

(TMamJW35NxmUJ1hDmCtHYEKdXG2oDSNRReE6)

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Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ 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 $v4_topreal1 : \iota \Rightarrow o$ be given. Let $k3_topreal1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $r1_jordan3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_jordan3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $np_1 : \iota$ be given. Let $k4_finseq_5 : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $k3_finseq_5 : \iota \Rightarrow \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k3_jordan3 : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $k5_numbers : \iota$ be given. Let $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v5_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0. (\neg v1_xboole_0 X0) \Rightarrow (\forall X1. (m2_finseq_1 X1 X0) \Rightarrow \\ & ((\neg v1_xboole_0 X1) \Rightarrow ((k7_partfun1 X0 X1 np_1 = k7_partfun1 X0 (\\ & k4_finseq_5 X0 X1) (k3_finseq_1 X1)) \wedge (k7_partfun1 X0 X1 (k3_finseq_1 \\ & X1) = k7_partfun1 X0 (k4_finseq_5 X0 X1) np_1)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finseq_1 X0))) \Rightarrow \\ & ((k1_funct_1 X0 np_1 = k1_funct_1 (k3_finseq_5 X0) (k3_finseq_1 \\ & X0)) \wedge (k1_funct_1 X0 (k3_finseq_1 X0) = k1_funct_1 (k3_finseq_5 \\ & X0) np_1)) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \neg (X0 \in X1) \wedge ((m1_subset_1 X1 (\\ & k1_zfmisc_1 X2)) \wedge (v1_xboole_0 X2)) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m2_finseq_1 X0 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\ & (\forall X1.(m1_subset_1 X1 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\ & (((v4_topreal1 X0) \wedge (X1 \in k3_topreal1 np_2 X0)) \Rightarrow ((X1 = k1_funct_1 \\ & X0 np_1) \vee (r1_jordan3 (k3_jordan3 X0 X1) (k7_partfun1 (u1_struct_0 \\ & (k15_euclid np_2)) X0 np_1) X1)))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m2_finseq_1 X0 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\ & (k3_topreal1 np_2 X0 = k3_topreal1 np_2 (k4_finseq_5 (u1_struct_0 \\ & (k15_euclid np_2)) X0)) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m2_finseq_1 X0 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\ & (\forall X1.(m1_subset_1 X1 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\ & (((v4_topreal1 X0) \wedge (X1 \in k3_topreal1 np_2 X0)) \Rightarrow (k2_jordan3 (\\ & k4_finseq_5 (u1_struct_0 (k15_euclid np_2)) X0) X1 = k4_finseq_5 \\ & (u1_struct_0 (k15_euclid np_2)) (k3_jordan3 X0 X1)))) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m2_finseq_1 X0 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\ & (\forall X1.(m1_subset_1 X1 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\ & (\forall X2.(m1_subset_1 X2 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\ & ((r1_jordan3 X0 X1 X2) \Rightarrow (r1_jordan3 (k4_finseq_5 (u1_struct_0 \\ & (k15_euclid np_2)) X0) X2 X1)))) \end{aligned} \quad (7)$$

Assume the following.

$$\begin{aligned} & ((v2_xxreal_0 np_2) \wedge (m2_subset_1 np_2 k1_numbers k5_numbers)) \wedge \\ & ((m1_subset_1 np_2 k5_numbers) \wedge (m1_subset_1 np_2 k1_numbers)) \end{aligned} \quad (8)$$

Assume the following.

$$\forall X0. \forall X1. (m2_finseq_1 X1 X0) \Leftrightarrow (m1_finseq_1 X1 X0) \quad (9)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (10)$$

Assume the following.

$$\forall X0. \forall X1. (m1_finseq_1 X1 X0) \Rightarrow (k4_finseq_5 X0 X1 = k3_finseq_5 X1) \quad (11)$$

Assume the following.

$$\forall X0. \forall X1. (m1_finseq_1 X1 X0) \Rightarrow (k4_finseq_5 X0 (k4_finseq_5 X0 X1) = X1) \quad (12)$$

Assume the following.

$$\forall X0.((v4_topreal1 X0) \wedge (m1_finseq_1 X0 (u1_struct_0 (k15_euclid np_2)))) \Rightarrow (v4_topreal1 (k3_finseq_5 X0)) \quad (13)$$

Assume the following.

$$\forall X0. \forall X1. (m1_finseq_1 X1 X0) \Rightarrow ((v1_relat_1 X1) \wedge (v1_funct_1 X1) \wedge (v1_finseq_1 X1)) \quad (14)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((v1_relat_1 X1) \wedge ((v5_relat_1 X1 X0) \wedge (v1_funct_1 X1))) \Rightarrow (m1_subset_1 (k7_partfun1 X0 X1 X2) X0) \quad (15)$$

Assume the following.

$$\forall X0. \forall X1. (m1_finseq_1 X1 X0) \Rightarrow (m2_finseq_1 (k4_finseq_5 X0 X1) X0) \quad (16)$$

Assume the following.

$$\forall X0. \forall X1. ((v7_ordinal1 X0) \wedge (m1_finseq_1 X1 (u1_struct_0 (k15_euclid X0)))) \Rightarrow (m1_subset_1 (k3_topreal1 X0 X1) (k1_zfmisc_1 (u1_struct_0 (k15_euclid X0)))) \quad (17)$$

Assume the following.

$$\forall X0. \forall X1. ((m1_finseq_1 X0 (u1_struct_0 (k15_euclid np_2))) \wedge (m1_subset_1 X1 (u1_struct_0 (k15_euclid np_2)))) \Rightarrow (m2_finseq_1 (k3_jordan3 X0 X1) (u1_struct_0 (k15_euclid np_2))) \quad (18)$$

Assume the following.

$$\forall X0. (m1_subset_1 X0 k4_ordinal1) \Rightarrow (v7_ordinal1 X0) \quad (19)$$

Assume the following.

$$\forall X0. (m1_finseq_1 X0 (u1_struct_0 (k15_euclid np_2))) \Rightarrow ((v4_topreal1 X0) \Rightarrow (\neg v1_xboole_0 X0)) \quad (20)$$

Assume the following.

$$\forall X0. \forall X1. (m1_finseq_1 X1 X0) \Rightarrow (v5_relat_1 X1 X0) \quad (21)$$

Theorem 1

$$\begin{aligned} & \forall X0. (m2_finseq_1 X0 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\ & (\forall X1. (m1_subset_1 X1 (u1_struct_0 (k15_euclid np_2)))) \Rightarrow \\ & (((v4_topreal1 X0) \wedge (X1 \in k3_topreal1 np_2 X0)) \Rightarrow ((X1 = k1_funct_1 \\ & X0 (k3_finseq_1 X0)) \vee (r1_jordan3 (k2_jordan3 X0 X1) X1 (k7_partfun1 \\ & (u1_struct_0 (k15_euclid np_2)) X0 (k3_finseq_1 X0)))))) \end{aligned}$$