

t17_jordan5b

(TMYBFwBt8B1ZRq24QPkNp5Nyu28rn7G37XW)

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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 $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k2_jordan3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k12_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $np_1 : \iota$ be given. Let $k3_finseq_5 : \iota \Rightarrow \iota$ be given. Let $k9_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k3_topreal1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_finseq_5 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_jordan3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_numbers : \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k7_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ 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 $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v6_membered : \iota \Rightarrow o$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $v2_funct_1 : \iota \Rightarrow o$ be given. Let $v2_topreal1 : \iota \Rightarrow o$ be given. Let $v3_topreal1 : \iota \Rightarrow o$ be given. Let $v1_topreal1 : \iota \Rightarrow o$ be given. Let $k8_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_finseq_6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_jordan3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finseq_1 X0))) \Rightarrow \\ & ((k1_funct_1 X0 np_1 = k1_funct_1 (k3_finseq_5 X0) (k3_finseq_1 \\ & X0)) \wedge (k1_funct_1 X0 (k3_finseq_1 X0) = k1_funct_1 (k3_finseq_5 \\ & X0) np_1)) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0.k3_finseq_5 (k9_finseq_1 X0) = k9_finseq_1 X0 \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\neg(X0 \in X1) \wedge ((m1_subset_1 X1 (k1_zfmisc_1 X2)) \wedge (v1_xboole_0 X2)) \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m2_finseq_1 X0 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\ & (k3_topreal1 np_2 X0 = k3_topreal1 np_2 (k4_finseq_5 (u1_struct_0 \\ & (k15_euclid np_2)) X0)) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m2_finseq_1 X0 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\ & (\forall X1.(m1_subset_1 X1 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\ & (((v4_topreal1 X0) \wedge (X1 \in k3_topreal1 np_2 X0)) \Rightarrow (k2_jordan3 (\\ & k4_finseq_5 (u1_struct_0 (k15_euclid np_2)) X0) X1 = k4_finseq_5 \\ & (u1_struct_0 (k15_euclid np_2)) (k3_jordan3 X0 X1)))) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.(m2_finseq_1 \\ & X1 (u1_struct_0 (k15_euclid X0))) \Rightarrow ((r1_xxreal_0 np_2 (k3_finseq_1 \\ & X1)) \Rightarrow ((k1_funct_1 X1 np_1 \in k3_topreal1 X0 X1) \wedge ((k7_partfun1 \\ & (u1_struct_0 (k15_euclid X0)) X1 np_1 \in k3_topreal1 X0 X1) \wedge ((k1_funct_1 \\ & X1 (k3_finseq_1 X1) \in k3_topreal1 X0 X1) \wedge (k7_partfun1 (u1_struct_0 \\ & (k15_euclid X0)) X1 (k3_finseq_1 X1) \in k3_topreal1 X0 X1)))))) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} & ((v2_xxreal_0 np_2) \wedge (m2_subset_1 np_2 k1_numbers k5_numbers)) \wedge \\ & ((m1_subset_1 np_2 k5_numbers) \wedge (m1_subset_1 np_2 k1_numbers)) \end{aligned} \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.(m2_finseq_1 X1 X0) \Leftrightarrow (m1_finseq_1 X1 X0) \quad (8)$$

Assume the following.

$$\forall X0.k9_finseq_1 X0 = k5_finseq_1 X0 \quad (9)$$

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.

$$\forall X0.\forall X1.((\neg v1_xboole_0 X0) \wedge (m1_subset_1 X1 X0)) \Rightarrow (k12_finseq_1 X0 X1 = k5_finseq_1 X1) \quad (12)$$

Assume the following.

$$\forall X0.\forall X1.(m1_finseq_1 X1 X0)\Rightarrow(k4_finseq_5 X0 (k4_finseq_5 X0 X1) = X1) \quad (13)$$

Assume the following.

$$v6_membered k4_ordinal1 \quad (14)$$

Assume the following.

$$\forall X0.((v4_topreal1 X0)\wedge(m1_finseq_1 X0 (u1_struct_0 (k15_euclid np_2))))\Rightarrow(v4_topreal1 (k3_finseq_5 X0)) \quad (15)$$

Assume the following.

$$\forall X0.\forall X1.(m1_finseq_1 X1 X0)\Rightarrow((v1_relat_1 X1)\wedge(v1_funct_1 X1)\wedge(v1_finseq_1 X1)) \quad (16)$$

Assume the following.

$$\forall X0.\forall X1.(m1_finseq_1 X1 X0)\Rightarrow(m2_finseq_1 (k4_finseq_5 X0 X1) X0) \quad (17)$$

Assume the following.

$$\forall X0.\forall X1.((v7_ordinal1 X0)\wedge(m1_finseq_1 X1 (u1_struct_0 (k15_euclid X0))))\Rightarrow(m1_subset_1 (k3_topreal1 X0 X1) (k1_zfmisc_1 (u1_struct_0 (k15_euclid X0)))) \quad (18)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1_xboole_0 X0)\wedge(m1_subset_1 X1 X0))\Rightarrow(m2_finseq_1 (k12_finseq_1 X0 X1) X0) \quad (19)$$

Assume the following.

$$\forall X0.(m2_finseq_1 X0 (u1_struct_0 (k15_euclid np_2)))\Rightarrow((v4_topreal1 X0)\Leftrightarrow((v2_funct_1 X0)\wedge((r1_xxreal_0 np_2 (k3_finseq_1 X0))\wedge((v2_topreal1 X0)\wedge((v3_topreal1 X0)\wedge(v1_topreal1 X0)))))) \quad (20)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m2_finseq_1 X0 (u1_struct_0 (k15_euclid np_2)))\Rightarrow \\ & (\forall X1.(m1_subset_1 X1 (u1_struct_0 (k15_euclid np_2)))\Rightarrow \\ & (((X1\neq k1_funct_1 X0 np_1)\Rightarrow(k3_jordan3 X0 X1 = k8_finseq_1 (u1_struct_0 \\ & (k15_euclid np_2)) (k3_finseq_6 (u1_struct_0 (k15_euclid np_2)) \\ & X0 np_1 (k1_jordan3 X0 X1)) (k12_finseq_1 (u1_struct_0 (k15_euclid \\ & np_2)) X1)))\wedge((X1 = k1_funct_1 X0 np_1)\Rightarrow(k3_jordan3 X0 X1 = k12_finseq_1 \\ & (u1_struct_0 (k15_euclid np_2)) X1)))) \end{aligned} \quad (21)$$

Assume the following.

$$\forall X0.(v6_membered\ X0)\Rightarrow(\forall X1.(m1_subset_1\ X1\ X0)\Rightarrow (v7_ordinal1\ X1)) \quad (22)$$

Theorem 1

$$\begin{aligned} & \forall X0.(m2_finseq_1\ X0\ (u1_struct_0\ (k15_euclid\ np_2)))\Rightarrow \\ & (\forall X1.(m1_subset_1\ X1\ (u1_struct_0\ (k15_euclid\ np_2)))\Rightarrow \\ & (((v4_topreal1\ X0)\wedge(X1 = k1_funct_1\ X0\ (k3_finseq_1\ X0)))\Rightarrow(k2_jordan3 \\ & X0\ X1 = k12_finseq_1\ (u1_struct_0\ (k15_euclid\ np_2))\ X1))) \end{aligned}$$