

t22_jordan_a
(TMLw7M5v944cTYojWfvFgJJpbPe2nGnRXoY)

October 27, 2020

Let $v1_topreal2 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ 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 $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k5_numbers : \iota$ be given. Let $m1_jordan_a : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_finseq_1 : \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_jordan_a : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_jordan7 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ 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 $v5_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k7_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $r1_xreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np_1 : \iota$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k1_nat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} \forall X0.((v1_topreal2 X0) \wedge (m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 \\ (k15_euclid np_2)))))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 \\ (k15_euclid np_2))) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 \\ (k15_euclid np_2)))) \Rightarrow (r1_tarski (k1_jordan7 X0 X1 X2) X0))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. ((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 X1) \wedge \\ (m1_subset_1 X1 (k1_zfmisc_1 X0)))) \Rightarrow (\forall X2.(m2_subset_1 \\ X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1)) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (m2_finseq_1 X1 X0) \Leftrightarrow (m1_finseq_1 X1 X0) \quad (3)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (4)$$

Assume the following.

$$(\neg v1_xboole_0 k4_ordinal1) \wedge (v3_ordinal1 k4_ordinal1) \quad (5)$$

Assume the following.

$$\forall X0.((v1_topreal2 X0)\wedge(m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 (k15_euclid np_2))))))\Rightarrow(\forall X1.(m1_jordan_a X1 X0)\Rightarrow(m2_finseq_1 X1 (u1_struct_0 (k15_euclid np_2)))) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.(m1_finseq_1 X1 X0)\Rightarrow((v1_relat_1 X1)\wedge(v1_funct_1 X1)\wedge(v1_finseq_1 X1)) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((v1_relat_1 X1)\wedge((v5_relat_1 X1 X0)\wedge(v1_funct_1 X1)))\Rightarrow(m1_subset_1 (k7_partfun1 X0 X1 X2) X0) \quad (8)$$

Assume the following.

$$m1_subset_1 k5_numbers (k1_zfmisc_1 k1_numbers) \quad (9)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1_topreal2 X0)\wedge(m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 (k15_euclid np_2))))))\Rightarrow(\forall X1.(v7_ordinal1 X1)\Rightarrow(\forall X2. \\ (m1_jordan_a X2 X0)\Rightarrow(((r1_xxreal_0 np_1 X1)\Rightarrow((r1_xxreal_0 (\\ k3_finseq_1 X2) X1)\vee(k2_jordan_a X0 X1 X2 = k1_jordan7 X0 (k7_partfun1 \\ (u1_struct_0 (k15_euclid np_2)) X2 X1) (k7_partfun1 (u1_struct_0 \\ (k15_euclid np_2)) X2 (k1_nat_1 X1 np_1))))))\wedge((\neg(r1_xxreal_0 \\ np_1 X1)\wedge(\neg r1_xxreal_0 (k3_finseq_1 X2) X1))\Rightarrow(k2_jordan_a X0 \\ X1 X2 = k1_jordan7 X0 (k7_partfun1 (u1_struct_0 (k15_euclid np_2)) \\ X2 (k3_finseq_1 X2)) (k7_partfun1 (u1_struct_0 (k15_euclid np_2)) \\ X2 np_1)))))) \end{aligned} \quad (10)$$

Assume the following.

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

Assume the following.

$$\forall X0.\forall X1.(m1_finseq_1 X1 X0)\Rightarrow(v5_relat_1 X1 X0) \quad (12)$$

Assume the following.

$$\forall X0.(v1_xboole_0 X0)\Rightarrow(\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 X0))\Rightarrow(v1_xboole_0 X1)) \quad (13)$$

Theorem 1

$$\begin{aligned} \forall X0.((v1_topreal2 X0)\wedge(m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 \\ (k15_euclid np_2))))))\Rightarrow(\forall X1.(m2_subset_1 X1 k1_numbers \\ k5_numbers)\Rightarrow(\forall X2.(m1_jordan_a X2 X0)\Rightarrow((X1 \in k4_finseq_1 \\ X2)\Rightarrow(r1_tarski (k2_jordan_a X0 X1 X2) X0)))) \end{aligned}$$