

t50_jordan1g
(TMMN8cGzE2MHXRW2jvpcp9jCSV2RahyieoZ)

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Let $v4_topreal1 : \iota \Rightarrow o$ be given. Let $m2_finseq1 : \iota \Rightarrow \iota \Rightarrow o$ 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 $v4_pre_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k1_jordan5c : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_topreal1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $r1_xboole_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k9_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_finseq_6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_finseq_4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ 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 $v6_membered : \iota \Rightarrow o$ 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 $v7_ordinal1 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((v4_topreal1 X0) \wedge (m2_finseq1 X0 (u1_struct_0 (k15_euclid \\ & \quad np_2)))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 (k15_euclid \\ & \quad np_2))) \Rightarrow ((X1 \in k10_xtuple_0 X0) \Rightarrow (k3_jordan3 X0 X1 = k3_finseq_6 \\ & \quad (u1_struct_0 (k15_euclid np_2)) X0 np_1 (k4_finseq_4 X0 X1)))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((v4_topreal1\ X0)\wedge(m2_finseq_1\ X0\ (u1_struct_0\ (k15_euclid \\
& \quad np_2))))\Rightarrow(\forall X1.((v4_pre_topc\ X1\ (k15_euclid\ np_2))\wedge \\
& \quad (m1_subset_1\ X1\ (k1_zfmisc_1\ (u1_struct_0\ (k15_euclid\ np_2)))))\Rightarrow \\
& \quad (\neg(\neg r1_xboole_0\ (k3_topreal1\ np_2\ X0)\ X1)\wedge(\neg k7_partfun1\ (u1_struct_0 \\
& \quad (k15_euclid\ np_2))\ X0\ np_1\ \in\ X1)\wedge(k9_subset_1\ (u1_struct_0\ (\\
& \quad k15_euclid\ np_2))\ (k3_topreal1\ np_2\ (k3_jordan3\ X0\ (k1_jordan5c \\
& \quad (k3_topreal1\ np_2\ X0)\ X1\ (k7_partfun1\ (u1_struct_0\ (k15_euclid \\
& \quad np_2))\ X0\ np_1)\ (k7_partfun1\ (u1_struct_0\ (k15_euclid\ np_2)) \\
& \quad X0\ (k3_finseq_1\ X0))))))\ X1\neq k1_tarski\ (k1_jordan5c\ (k3_topreal1 \\
& \quad np_2\ X0)\ X1\ (k7_partfun1\ (u1_struct_0\ (k15_euclid\ np_2))\ X0\ np_1) \\
& \quad (k7_partfun1\ (u1_struct_0\ (k15_euclid\ np_2))\ X0\ (k3_finseq_1 \\
& \quad X0))))))
\end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned}
& ((v2_xxreal_0\ np_2)\wedge(m2_subset_1\ np_2\ k1_numbers\ k5_numbers))\wedge \\
& ((m1_subset_1\ np_2\ k5_numbers)\wedge(m1_subset_1\ np_2\ k1_numbers))
\end{aligned} \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.(m2_finseq_1\ X1\ X0)\Leftrightarrow(m1_finseq_1\ X1\ X0) \tag{4}$$

Assume the following.

$$k5_numbers = k4_ordinal1 \tag{5}$$

Assume the following.

$$v6_membered\ k4_ordinal1 \tag{6}$$

Assume the following.

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

Assume the following.

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

Assume the following.

$$\forall X0.\forall X1.((v7_ordinal1\ X0)\wedge(m1_finseq_1\ X1\ (u1_struct_0 \\
\quad (k15_euclid\ X0))))\Rightarrow(m1_subset_1\ (k3_topreal1\ X0\ X1)\ (k1_zfmisc_1 \\
\quad (u1_struct_0\ (k15_euclid\ X0)))) \tag{9}$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.((m1_subset_1 X0 \\ & (k1_zfmisc_1 (u1_struct_0 (k15_euclid np_2)))) \wedge ((m1_subset_1 \\ & X1 (k1_zfmisc_1 (u1_struct_0 (k15_euclid np_2)))) \wedge ((m1_subset_1 \\ & X2 (u1_struct_0 (k15_euclid np_2))) \wedge (m1_subset_1 X3 (u1_struct_0 \\ & (k15_euclid np_2)))))) \Rightarrow (m1_subset_1 (k1_jordan5c X0 X1 X2 X3) \\ & (u1_struct_0 (k15_euclid np_2))) \end{aligned} \quad (10)$$

Assume the following.

$$\forall X0.\forall X1.(m1_finseq_1 X1 X0) \Rightarrow (v5_relat_1 X1 X0) \quad (11)$$

Assume the following.

$$\forall X0.(v6_membered X0) \Rightarrow (\forall X1.(m1_subset_1 X1 X0) \Rightarrow (v7_ordinal1 X1)) \quad (12)$$

Theorem 1

$$\begin{aligned} & \forall X0.((v4_topreal1 X0) \wedge (m2_finseq_1 X0 (u1_struct_0 (k15_euclid \\ & np_2)))) \Rightarrow (\forall X1.((v4_pre_topc X1 (k15_euclid np_2)) \wedge \\ & (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 (k15_euclid np_2)))))) \Rightarrow \\ & ((k1_jordan5c (k3_topreal1 np_2 X0) X1 (k7_partfun1 (u1_struct_0 \\ & (k15_euclid np_2)) X0 np_1) (k7_partfun1 (u1_struct_0 (k15_euclid \\ & np_2)) X0 (k3_finseq_1 X0)) \in k10_xtuple_0 X0) \Rightarrow ((r1_xboole_0 \\ & (k3_topreal1 np_2 X0) X1) \vee ((k7_partfun1 (u1_struct_0 (k15_euclid \\ & np_2)) X0 np_1 \in X1) \vee (k9_subset_1 (u1_struct_0 (k15_euclid np_2)) \\ & (k3_topreal1 np_2 (k3_finseq_6 (u1_struct_0 (k15_euclid np_2)) \\ & X0 np_1 (k4_finseq_4 X0 (k1_jordan5c (k3_topreal1 np_2 X0) X1 \\ & (k7_partfun1 (u1_struct_0 (k15_euclid np_2)) X0 np_1) (k7_partfun1 \\ & (u1_struct_0 (k15_euclid np_2)) X0 (k3_finseq_1 X0)))))) X1 = \\ & k1_tarski (k1_jordan5c (k3_topreal1 np_2 X0) X1 (k7_partfun1 \\ & (u1_struct_0 (k15_euclid np_2)) X0 np_1) (k7_partfun1 (u1_struct_0 \\ & (k15_euclid np_2)) X0 (k3_finseq_1 X0)))))) \end{aligned}$$