

t4_jordan3 (TMSBMCAcn- SaKvqmw2vtBpC6Ecy5o5ivCLK3)

October 27, 2020

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 $k5_numbers : \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v4_topreal1 : \iota \Rightarrow o$ be given. Let $k17_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ 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 $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k16_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v1_topreal1 : \iota \Rightarrow o$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $v3_topreal1 : \iota \Rightarrow o$ be given. Let $v2_funct_1 : \iota \Rightarrow o$ be given. Let $v2_topreal1 : \iota \Rightarrow o$ be given. Let $v3_xxreal_2 : \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $v4_xxreal_2 : \iota \Rightarrow o$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $v6_membered : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.((v1_relat_1 X1) \wedge ((\\ & v1_funct_1 X1) \wedge (v1_finseq_1 X1))) \Rightarrow ((r1_xxreal_0 X0 (k3_finseq_1 \\ & X1)) \Rightarrow (k3_finseq_1 (k16_finseq_1 X0 X1) = X0))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.((v1_relat_1 X1) \wedge ((\\ & v1_funct_1 X1) \wedge (v1_finseq_1 X1))) \Rightarrow ((r1_xxreal_0 (k3_finseq_1 \\ & X1) X0) \Rightarrow (k16_finseq_1 X0 X1 = X1))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 X1) \wedge \\ & (m1_subset_1 X1 (k1_zfmisc_1 X0)))) \Rightarrow (\forall X2.(m2_subset_1 \\ & X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1)) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.(m2_finseq_1 X1 X0) \Leftrightarrow (m1_finseq_1 X1 X0) \quad (4)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((v7_ordinal1 X1)\wedge(m1_finseq_1 X2 X0))\Rightarrow(k17_finseq_1 X0 X1 X2 = k16_finseq_1 X1 X2) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.(((v1_topreal1 X0)\wedge(m1_finseq_1 X0 (u1_struct_0 (k15_euclid np_2))))\wedge(m1_subset_1 X1 k5_numbers))\Rightarrow(v1_topreal1 (k16_finseq_1 X1 X0)) \quad (7)$$

Assume the following.

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

Assume the following.

$$\forall X0.\forall X1.(((v3_topreal1 X0)\wedge(m1_finseq_1 X0 (u1_struct_0 (k15_euclid np_2))))\wedge(m1_subset_1 X1 k5_numbers))\Rightarrow(v3_topreal1 (k16_finseq_1 X1 X0)) \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((v7_ordinal1 X0)\wedge((\neg v1_xboole_0 X1)\wedge((v2_funct_1 X2)\wedge(m1_finseq_1 X2 X1))))\Rightarrow(((v1_relat_1 (k16_finseq_1 X0 X2))\wedge((v1_funct_1 (k16_finseq_1 X0 X2))\wedge((v2_funct_1 (k16_finseq_1 X0 X2))\wedge(v1_finseq_1 (k16_finseq_1 X0 X2)))))) \quad (10)$$

Assume the following.

$$\forall X0.\forall X1.(((v2_topreal1 X0)\wedge(m1_finseq_1 X0 (u1_struct_0 (k15_euclid np_2))))\wedge(m1_subset_1 X1 k5_numbers))\Rightarrow(v2_topreal1 (k16_finseq_1 X1 X0)) \quad (11)$$

Assume the following.

$$(\neg v3_xxreal_2 k1_numbers)\wedge(\neg v4_xxreal_2 k1_numbers) \quad (12)$$

Assume the following.

$$\forall X0.\forall X1.(m2_finseq_1 X1 X0)\Rightarrow(((v1_funct_1 X1)\wedge((v1_finseq_1 X1)\wedge(m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers X0)))))) \quad (13)$$

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.

$$m1_subset_1\ k5_numbers\ (k1_zfmisc_1\ k1_numbers) \quad (15)$$

Assume the following.

$$\forall X0.((v1_relat_1\ X0)\wedge((v1_funct_1\ X0)\wedge(v1_finseq_1\ X0)))\Rightarrow \\ (m2_subset_1\ (k3_finseq_1\ X0)\ k1_numbers\ k5_numbers) \quad (16)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((v7_ordinal1\ X1)\wedge(m1_finseq_1 \\ X2\ X0))\Rightarrow(m2_finseq_1\ (k17_finseq_1\ X0\ X1\ X2)\ X0) \quad (17)$$

Assume the following.

$$\forall X0.(m2_finseq_1\ X0\ (u1_struct_0\ (k15_euclid\ np_2)))\Rightarrow \\ ((v4_topreal1\ X0)\Leftrightarrow((v2_funct_1\ X0)\wedge((r1_xxreal_0\ np_2\ (k3_finseq_1 \\ X0))\wedge((v2_topreal1\ X0)\wedge((v3_topreal1\ X0)\wedge(v1_topreal1\ X0)))))) \quad (18)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xxreal_0\ X0)\wedge(v1_xxreal_0\ X1))\Rightarrow(\\ (r1_xxreal_0\ X0\ X1)\vee(r1_xxreal_0\ X1\ X0)) \quad (19)$$

Assume the following.

$$\forall X0.(v6_membered\ X0)\Rightarrow((v6_membered\ X0)\wedge(v3_xxreal_2\ X0)) \quad (20)$$

Assume the following.

$$\forall X0.(m1_subset_1\ X0\ k4_ordinal1)\Rightarrow(v7_ordinal1\ X0) \quad (21)$$

Assume the following.

$$\forall X0.\forall X1.(v1_xboole_0\ X0)\Rightarrow(\forall X2.(m1_subset_1 \\ X2\ (k1_zfmisc_1\ (k2_zfmisc_1\ X1\ X0)))\Rightarrow(v1_xboole_0\ X2)) \quad (22)$$

Assume the following.

$$\forall X0.(m1_finseq_1\ X0\ (u1_struct_0\ (k15_euclid\ np_2)))\Rightarrow \\ ((v4_topreal1\ X0)\Rightarrow(\neg v1_xboole_0\ X0)) \quad (23)$$

Assume the following.

$$\forall X0.(v7_ordinal1\ X0)\Rightarrow(v1_xxreal_0\ X0) \quad (24)$$

Assume the following.

$$\forall X0.(v1_xboole_0\ X0)\Rightarrow(v6_membered\ X0) \quad (25)$$

Theorem 1

$$\forall X0.(m2_finseq_1\ X0\ (u1_struct_0\ (k15_euclid\ np_2)))\Rightarrow \\ (\forall X1.(m1_subset_1\ X1\ k5_numbers)\Rightarrow(((r1_xxreal_0\ np_2 \\ X1)\wedge(v4_topreal1\ X0))\Rightarrow(v4_topreal1\ (k17_finseq_1\ (u1_struct_0 \\ (k15_euclid\ np_2))\ X1\ X0))))$$