

t34_jordan4

(TMa3mM7T7KR4x8KY6tHUH5o8o8q4DY84nzK)

October 27, 2020

Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v3_funct_1 : \iota \Rightarrow o$ be given. Let $v1_finseq_6 : \iota \Rightarrow \iota \Rightarrow o$ 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 $v1_topreal1 : \iota \Rightarrow o$ be given. Let $v2_topreal1 : \iota \Rightarrow o$ be given. Let $v1_goboard5 : \iota \Rightarrow o$ be given. Let $v2_goboard5 : \iota \Rightarrow o$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ 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 $np_1 : \iota$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $r2_jordan4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k8_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_finseq_6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_nat.d : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $k7_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $r1_jordan4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_finseq_5 : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $k4_ordinal1 : \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k2_finseq_6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $v6_membered : \iota \Rightarrow o$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finseq_1 X0))) \Rightarrow \\ & (\forall X1.((v1_relat_1 X1) \wedge ((v1_funct_1 X1) \wedge (v1_finseq_1 \\ & X1))) \Rightarrow (k3_finseq_5 (k7_finseq_1 X0 X1) = k7_finseq_1 (k3_finseq_5 \\ & X1) (k3_finseq_5 X0))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. \neg (X0 \in X1) \wedge ((m1_subset_1 X1 (k1_zfmisc_1 X2)) \wedge (v1_xboole_0 X2)) \tag{2}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v1_xboole_0 X0) \wedge ((\neg v3_funct_1 X0) \wedge ((v1_finseq_6 \\
& X0 (u1_struct_0 (k15_euclid np_2))) \wedge ((v1_topreal1 X0) \wedge ((v2_topreal1 \\
& X0) \wedge ((v1_goboard5 X0) \wedge ((v2_goboard5 X0) \wedge (m2_finseq_1 X0 (u1_struct_0 \\
& (k15_euclid np_2)))))))))) \Rightarrow (\forall X1.(m1_subset_1 X1 k5_numbers) \Rightarrow \\
& (\forall X2.(m1_subset_1 X2 k5_numbers) \Rightarrow ((r1_xxreal_0 np_1 \\
& X2) \Rightarrow ((r1_xxreal_0 X1 X2) \vee ((r1_xxreal_0 (k3_finseq_1 X0) X1) \vee \\
& (r1_jordan4 X0 (k8_finseq_1 (u1_struct_0 (k15_euclid np_2)) \\
& (k3_finseq_6 (u1_struct_0 (k15_euclid np_2)) X0 X1 (k7_nat_d \\
& (k3_finseq_1 X0) np_1)) (k3_finseq_6 (u1_struct_0 (k15_euclid \\
& np_2)) X0 np_1 X2)) X1 X2))))))
\end{aligned} \tag{3}$$

Assume the following.

$$\forall X0. \forall X1.(m1_subset_1 X0 X1) \Rightarrow ((v1_xboole_0 X1) \vee (X0 \in X1)) \tag{4}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v1_xboole_0 X0) \wedge ((\neg v3_funct_1 X0) \wedge ((v1_finseq_6 \\
& X0 (u1_struct_0 (k15_euclid np_2))) \wedge ((v1_topreal1 X0) \wedge ((v2_topreal1 \\
& X0) \wedge ((v1_goboard5 X0) \wedge ((v2_goboard5 X0) \wedge (m2_finseq_1 X0 (u1_struct_0 \\
& (k15_euclid np_2)))))))))) \Rightarrow (\forall X1.(m2_finseq_1 X1 (u1_struct_0 \\
& (k15_euclid np_2))) \Rightarrow (\forall X2.(m1_subset_1 X2 k5_numbers) \Rightarrow \\
& (\forall X3.(m1_subset_1 X3 k5_numbers) \Rightarrow ((r1_jordan4 X0 X1 X2 \\
& X3) \Rightarrow (r2_jordan4 X0 (k4_finseq_5 (u1_struct_0 (k15_euclid np_2)) \\
& X1) X3 X2))))))
\end{aligned} \tag{5}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(\neg v1_xboole_0 X0) \Rightarrow (\forall X1.(m2_finseq_1 X1 X0) \Rightarrow \\
& (\forall X2.(m1_subset_1 X2 k5_numbers) \Rightarrow (\forall X3.(m1_subset_1 \\
& X3 k5_numbers) \Rightarrow (k3_finseq_6 X0 X1 X2 X3 = k4_finseq_5 X0 (k3_finseq_6 \\
& X0 X1 X3 X2))))))
\end{aligned} \tag{6}$$

Assume the following.

$$((v2_xxreal_0 np_1) \wedge (m2_subset_1 np_1 k1_numbers k5_numbers)) \wedge ((m1_subset_1 np_1 k5_numbers) \wedge (m1_subset_1 np_1 k1_numbers)) \tag{7}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1.((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 X1) \wedge \\
& (m1_subset_1 X1 (k1_zfmisc_1 X0)))) \Rightarrow (\forall X2.(m2_subset_1 \\
& X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1))
\end{aligned} \tag{8}$$

Assume the following.

$$\forall X0. \forall X1.(m2_finseq_1 X1 X0) \Leftrightarrow (m1_finseq_1 X1 X0) \tag{9}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((m1_finseq_1 X1 X0)\wedge(m1_finseq_1 X2 X0))\Rightarrow(k8_finseq_1 X0 X1 X2 = k7_finseq_1 X1 X2) \quad (10)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.(m1_finseq_1 X1 X0)\Rightarrow(k4_finseq_5 X0 X1 = k3_finseq_5 X1) \quad (12)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.((\neg v1_xboole_0 X0)\wedge((m1_finseq_1 X1 X0)\wedge((v7_ordinal1 X2)\wedge(v7_ordinal1 X3))))\Rightarrow(k3_finseq_6 X0 X1 X2 X3 = k2_finseq_6 X1 X2 X3) \quad (13)$$

Assume the following.

$$\exists X0.(m1_subset_1 X0 (k1_zfmisc_1 k1_numbers))\wedge((\neg v1_xboole_0 X0)\wedge(v3_ordinal1 X0)) \quad (14)$$

Assume the following.

$$\forall X0.\forall X1.(m1_finseq_1 X1 X0)\Rightarrow(k4_finseq_5 X0 (k4_finseq_5 X0 X1) = X1) \quad (15)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0)\wedge((v1_funct_1 X0)\wedge(v1_finseq_1 X0)))\Rightarrow(k3_finseq_5 (k3_finseq_5 X0) = X0) \quad (16)$$

Assume the following.

$$v6_membered k4_ordinal1 \quad (17)$$

Assume the following.

$$\forall X0.\exists X1.m1_subset_1 X1 X0 \quad (18)$$

Assume the following.

$$\forall X0.\forall X1.(m2_finseq_1 X1 X0)\Rightarrow((v1_funct_1 X1)\wedge((v1_finseq_1 X1)\wedge(m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers X0)))))) \quad (19)$$

Assume the following.

$$\forall X0.\forall X1.(m1_finseq_1 X1 X0)\Rightarrow((v1_relat_1 X1)\wedge(v1_funct_1 X1)\wedge(v1_finseq_1 X1)) \quad (20)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((m1_finseq_1 X1 X0)\wedge(m1_finseq_1 X2 X0))\Rightarrow(m2_finseq_1 (k8_finseq_1 X0 X1 X2) X0) \quad (21)$$

Assume the following.

$$\forall X0.\forall X1.((v7_ordinal1 X0)\wedge(v7_ordinal1 X1))\Rightarrow(m1_subset_1 (k7_nat_d X0 X1) k5_numbers) \quad (22)$$

Assume the following.

$$m1_subset_1 k5_numbers (k1_zfmisc_1 k1_numbers) \quad (23)$$

Assume the following.

$$\forall X0.\forall X1.(m1_finseq_1 X1 X0)\Rightarrow(m2_finseq_1 (k4_finseq_5 X0 X1) X0) \quad (24)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.((\neg v1_xboole_0 X0)\wedge((m1_finseq_1 X1 X0)\wedge((v7_ordinal1 X2)\wedge(v7_ordinal1 X3))))\Rightarrow(m2_finseq_1 (k3_finseq_6 X0 X1 X2 X3) X0) \quad (25)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0)\wedge((v1_funct_1 X0)\wedge(v1_finseq_1 X0)))\Rightarrow(m2_subset_1 (k3_finseq_1 X0) k1_numbers k5_numbers) \quad (26)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(((v1_relat_1 X0)\wedge((v1_funct_1 X0)\wedge(v1_finseq_1 X0)))\wedge((v7_ordinal1 X1)\wedge(v7_ordinal1 X2)))\Rightarrow((v1_relat_1 (k2_finseq_6 X0 X1 X2))\wedge((v1_funct_1 (k2_finseq_6 X0 X1 X2))\wedge(v1_finseq_1 (k2_finseq_6 X0 X1 X2)))) \quad (27)$$

Assume the following.

$$\forall X0.\forall X1.(v1_xboole_0 X0)\Rightarrow(\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X1 X0)))\Rightarrow(v1_xboole_0 X2)) \quad (28)$$

Assume the following.

$$\forall X0.\forall X1.(v1_xboole_0 X0)\Rightarrow(\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))\Rightarrow(v1_xboole_0 X2)) \quad (29)$$

Assume the following.

$$\forall X0.(v6_membered X0)\Rightarrow(\forall X1.(m1_subset_1 X1 X0)\Rightarrow(v7_ordinal1 X1)) \quad (30)$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v1_xboole_0 X0) \wedge (\neg v3_funct_1 X0) \wedge ((v1_finseq_6 \\ & X0 (u1_struct_0 (k15_euclid np_2))) \wedge ((v1_topreal1 X0) \wedge ((v2_topreal1 \\ & X0) \wedge ((v1_goboard5 X0) \wedge ((v2_goboard5 X0) \wedge (m2_finseq_1 X0 (u1_struct_0 \\ & (k15_euclid np_2)))))))))) \Rightarrow (\forall X1.(m1_subset_1 X1 k5_numbers) \Rightarrow \\ & (\forall X2.(m1_subset_1 X2 k5_numbers) \Rightarrow ((r1_xxreal_0 np_1 \\ & X1) \Rightarrow ((r1_xxreal_0 X2 X1) \vee ((r1_xxreal_0 (k3_finseq_1 X0) X2) \vee \\ & (r2_jordan4 X0 (k8_finseq_1 (u1_struct_0 (k15_euclid np_2)) \\ & (k3_finseq_6 (u1_struct_0 (k15_euclid np_2)) X0 X1 np_1) (k3_finseq_6 \\ & (u1_struct_0 (k15_euclid np_2)) X0 (k7_nat_d (k3_finseq_1 X0) \\ & np_1) X2)) X1 X2)))))) \end{aligned}$$