

t37_goboard7

(TMPNkCF3mixoep87QyJ8hNHh9BaTfUUq6cF)

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Let $v3_funct_1 : \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ 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 $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k5_numbers : \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np_1 : \iota$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k7_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ 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 $v3_membered : \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_finseq_1 : \iota \Rightarrow o$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v2_membered : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v3_funct_1 X0) \wedge ((\neg v1_xboole_0 X0) \wedge ((v1_finseq_6 \\ & X0 (u1_struct_0 (k15_euclid np_2))) \wedge ((v1_topreal1 X0) \wedge ((v2_topreal1 \\ & X0) \wedge ((v1_goboard5 X0) \wedge ((v2_goboard5 X0) \wedge (m2_finseq_1 X0 (u1_struct_0 \\ & (k15_euclid np_2)))))))))) \Rightarrow (\forall X1. (m2_subset_1 X1 k1_numbers \\ & k5_numbers) \Rightarrow (\forall X2. (m2_subset_1 X2 k1_numbers k5_numbers) \Rightarrow \\ & (\neg (r1_xxreal_0 np_1 X1) \wedge ((\neg r1_xxreal_0 X2 X1) \wedge ((\neg r1_xxreal_0 \\ & (k3_finseq_1 X0) X2) \wedge (k7_partfun1 (u1_struct_0 (k15_euclid np_2)) \\ & X0 X1 = k7_partfun1 (u1_struct_0 (k15_euclid np_2)) X0 X2)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0. (v1_xxreal_0 X0) \Rightarrow (\forall X1. (v1_xxreal_0 X1) \Rightarrow ((r1_xxreal_0 X0 X1) \wedge (r1_xxreal_0 X1 X0)) \Rightarrow (X0 = X1)) \quad (2)$$

Assume the following.

$$\begin{aligned} & ((v2_xxreal_0 np_1) \wedge (m2_subset_1 np_1 k1_numbers k5_numbers)) \wedge \\ & ((m1_subset_1 np_1 k5_numbers) \wedge (m1_subset_1 np_1 k1_numbers)) \end{aligned} \quad (3)$$

Assume the following.

$$r1_xxreal_0 \ np_1 \ np_1 \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.(m2_finseq_1 \ X1 \ X0) \Leftrightarrow (m1_finseq_1 \ X1 \ X0) \tag{5}$$

Assume the following.

$$k5_numbers = k4_ordinal1 \tag{6}$$

Assume the following.

$$(\neg v1_xboole_0 \ k4_ordinal1) \wedge (v3_ordinal1 \ k4_ordinal1) \tag{7}$$

Assume the following.

$$v3_membered \ k1_numbers \tag{8}$$

Assume the following.

$$\neg v1_xboole_0 \ k1_numbers \tag{9}$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.((\neg v1_xboole_0 \ X0) \wedge ((\neg v1_xboole_0 \ X1) \wedge \\ (m1_subset_1 \ X1 \ (k1_zfmisc_1 \ X0)))) \Rightarrow (\forall X2.(m2_subset_1 \\ X2 \ X0 \ X1) \Rightarrow (m1_subset_1 \ X2 \ X0)) \end{aligned} \tag{10}$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.(m2_finseq_1 \ X1 \ X0) \Rightarrow ((v1_funct_1 \ X1) \wedge \\ (v1_finseq_1 \ X1) \wedge (m1_subset_1 \ X1 \ (k1_zfmisc_1 \ (k2_zfmisc_1 \ k5_numbers \\ X0)))) \end{aligned} \tag{11}$$

Assume the following.

$$\forall X0.\forall X1.(m1_finseq_1 \ X1 \ X0) \Rightarrow ((v1_relat_1 \ X1) \wedge \\ (v1_funct_1 \ X1) \wedge (v1_finseq_1 \ X1)) \tag{12}$$

Assume the following.

$$m1_subset_1 \ k5_numbers \ (k1_zfmisc_1 \ k1_numbers) \tag{13}$$

Assume the following.

$$\forall X0.((v1_relat_1 \ X0) \wedge ((v1_funct_1 \ X0) \wedge (v1_finseq_1 \ X0))) \Rightarrow \\ (m2_subset_1 \ (k3_finseq_1 \ X0) \ k1_numbers \ k5_numbers) \tag{14}$$

Assume the following.

$$\begin{aligned} \forall X0.(\neg v1_xboole_0 \ X0) \Rightarrow (\forall X1.(m2_finseq_1 \ X1 \ X0) \Rightarrow \\ ((v1_finseq_6 \ X1 \ X0) \Leftrightarrow (k7_partfun1 \ X0 \ X1 \ np_1 = k7_partfun1 \ X0 \ X1 \\ (k3_finseq_1 \ X1)))) \end{aligned} \tag{15}$$

Assume the following.

$$\forall X0.\forall X1.((v1.xxreal_0 X0)\wedge(v1.xxreal_0 X1))\Rightarrow((r1.xxreal_0 X0 X1)\vee(r1.xxreal_0 X1 X0)) \quad (16)$$

Assume the following.

$$\forall X0.\forall X1.(v1.xboole_0 X0)\Rightarrow(\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X1 X0)))\Rightarrow(v1.xboole_0 X2)) \quad (17)$$

Assume the following.

$$\forall X0.(v3_membered X0)\Rightarrow(v2_membered X0) \quad (18)$$

Assume the following.

$$\forall X0.(v2_membered X0)\Rightarrow(\forall X1.(m1_subset_1 X1 X0)\Rightarrow (v1.xxreal_0 X1)) \quad (19)$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v3_funct_1 X0)\wedge((\neg v1_xboole_0 X0)\wedge((v1_finseq_6 \\ & X0 (u1_struct_0 (k15_euclid np_2)))\wedge((v1_topreal1 X0)\wedge((v2_topreal1 \\ & X0)\wedge((v1_goboard5 X0)\wedge((v2_goboard5 X0)\wedge(m2_finseq_1 X0 (u1_struct_0 \\ & (k15_euclid np_2))))))))))\Rightarrow(\forall X1.(m2_subset_1 X1 k1_numbers \\ & k5_numbers)\Rightarrow(\forall X2.(m2_subset_1 X2 k1_numbers k5_numbers)\Rightarrow \\ & (\neg(\neg r1_xxreal_0 X1 np_1)\wedge((\neg r1_xxreal_0 X2 X1)\wedge((r1_xxreal_0 \\ & X2 (k3_finseq_1 X0))\wedge(k7_partfun1 (u1_struct_0 (k15_euclid np_2)) \\ & X0 X1 = k7_partfun1 (u1_struct_0 (k15_euclid np_2)) X0 X2)))))) \end{aligned}$$