

t20_goboard1

(TMZPB3gUo6cpeoPHAVCSnxGYip8P6Eq9kPT)

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Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k5_numbers : \iota$ be given. Let $v3_relat_1 : \iota \Rightarrow o$ be given. Let $v1_matrix_1 : \iota \Rightarrow o$ be given. Let $v2_goboard1 : \iota \Rightarrow o$ be given. Let $v3_goboard1 : \iota \Rightarrow o$ be given. Let $v4_goboard1 : \iota \Rightarrow o$ be given. Let $v5_goboard1 : \iota \Rightarrow o$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_finseq_2 : \iota \Rightarrow \iota$ 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 $k1_matrix_1 : \iota \Rightarrow \iota$ be given. Let $k2_nat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k2_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k4_finseq_1 : \iota \Rightarrow \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_numbers : \iota$ be given. Let $k3_matrix_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_goboard1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k9_matrix_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_nat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_ordinal1 : \iota$ be given. Let $k2_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $v3_membered : \iota \Rightarrow o$ 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 $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $v2_membered : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
& \forall X0.(m2_subset_1 X0 k1_numbers k5_numbers) \Rightarrow ((\neg(\neg r1_xxreal_0 \\
& \quad X0 np_1) \wedge (\forall X1.(m2_subset_1 X1 k1_numbers k5_numbers) \Rightarrow \\
& \quad (\neg(X0 = k2_nat_1 X1 np_1) \wedge (\neg r1_xxreal_0 X1 k6_numbers)))) \wedge (\neg \\
& \quad (\exists X1.(m2_subset_1 X1 k1_numbers k5_numbers) \wedge ((X0 = k2_nat_1 \\
& \quad X1 np_1) \wedge (\neg r1_xxreal_0 X1 k6_numbers)))) \wedge (r1_xxreal_0 X0 np_1)))
\end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(v7_ordinal1 X1) \Rightarrow ((\\
& \quad X0 \in k2_finseq_1 X1) \Leftrightarrow ((r1_xxreal_0 np_1 X0) \wedge (r1_xxreal_0 X0 X1))))
\end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(m2_subset_1 X0 k1_numbers k5_numbers) \Rightarrow (\forall X1. \\
& (m2_subset_1 X1 k1_numbers k5_numbers) \Rightarrow (\forall X2.(m2_subset_1 \\
& X2 k1_numbers k5_numbers) \Rightarrow (\forall X3.((\neg v3_relat_1 X3) \wedge ((v1_matrix_1 \\
& X3) \wedge ((v2_goboard1 X3) \wedge ((v3_goboard1 X3) \wedge ((v4_goboard1 X3) \wedge \\
& ((v5_goboard1 X3) \wedge (m2_finseq_1 X3 (k3_finseq_2 (u1_struct_0 \\
& (k15_euclid np_2)))))))))) \Rightarrow (((k1_matrix_1 X3 = k2_nat_1 X0 np_1) \wedge \\
& ((X1 \in k2_finseq_1 X0) \wedge (X2 \in k4_finseq_1 X3))) \Rightarrow ((r1_xxreal_0 X0 \\
& k6_numbers) \vee ((k3_matrix_1 (u1_struct_0 (k15_euclid np_2)) \\
& (k3_goboard1 X3 np_1) X2 X1 = k3_matrix_1 (u1_struct_0 (k15_euclid \\
& np_2)) X3 X2 (k2_nat_1 X1 np_1)) \wedge (np_1 \in k2_finseq_1 (k1_matrix_1 \\
& X3)))))))))
\end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(m2_subset_1 X0 k1_numbers k5_numbers) \Rightarrow (\forall X1. \\
& (m2_subset_1 X1 k1_numbers k5_numbers) \Rightarrow (\forall X2.(m2_subset_1 \\
& X2 k1_numbers k5_numbers) \Rightarrow (\forall X3.(m2_subset_1 X3 k1_numbers \\
& k5_numbers) \Rightarrow (\forall X4.((\neg v3_relat_1 X4) \wedge ((v1_matrix_1 X4) \wedge \\
& ((v2_goboard1 X4) \wedge ((v3_goboard1 X4) \wedge ((v4_goboard1 X4) \wedge ((v5_goboard1 \\
& X4) \wedge (m2_finseq_1 X4 (k3_finseq_2 (u1_struct_0 (k15_euclid np_2)))))))))) \Rightarrow \\
& (((X0 \in k2_finseq_1 (k1_matrix_1 X4)) \wedge ((k1_matrix_1 X4 = k2_nat_1 \\
& X1 np_1) \wedge ((X2 \in k4_finseq_1 X4) \wedge (r1_xxreal_0 np_1 X3)))) \Rightarrow ((\\
& r1_xxreal_0 X1 k6_numbers) \vee ((r1_xxreal_0 X0 X3) \vee ((k3_matrix_1 \\
& (u1_struct_0 (k15_euclid np_2)) (k3_goboard1 X4 X0) X2 X3 = k3_matrix_1 \\
& (u1_struct_0 (k15_euclid np_2)) X4 X2 X3) \wedge (X3 \in k2_finseq_1 (k1_matrix_1 \\
& X4)))))))))
\end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(m2_subset_1 X0 k1_numbers k5_numbers) \Rightarrow (\forall X1. \\
& (m2_subset_1 X1 k1_numbers k5_numbers) \Rightarrow (\forall X2.(m2_subset_1 \\
& X2 k1_numbers k5_numbers) \Rightarrow (\forall X3.((\neg v3_relat_1 X3) \wedge ((v1_matrix_1 \\
& X3) \wedge ((v2_goboard1 X3) \wedge ((v3_goboard1 X3) \wedge ((v4_goboard1 X3) \wedge \\
& ((v5_goboard1 X3) \wedge (m2_finseq_1 X3 (k3_finseq_2 (u1_struct_0 \\
& (k15_euclid np_2)))))))))) \Rightarrow (((X0 \in k2_finseq_1 (k1_matrix_1 \\
& X3)) \wedge ((k1_matrix_1 X3 = k2_nat_1 X1 np_1) \wedge ((r1_xxreal_0 X0 X2) \wedge \\
& (r1_xxreal_0 X2 X1)))) \Rightarrow ((r1_xxreal_0 X1 k6_numbers) \vee ((k9_matrix_1 \\
& (u1_struct_0 (k15_euclid np_2)) (k3_goboard1 X3 X0) X2 = k9_matrix_1 \\
& (u1_struct_0 (k15_euclid np_2)) X3 (k2_nat_1 X2 np_1)) \wedge ((X2 \in \\
& k2_finseq_1 (k1_matrix_1 (k3_goboard1 X3 X0))) \wedge (k2_nat_1 X2 np_1 \in \\
& k2_finseq_1 (k1_matrix_1 X3)))))))))
\end{aligned} \tag{5}$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(v7_ordinal1 X1) \Rightarrow ((\neg r1_xxreal_0 (k1_nat_1 X1 np_1) X0) \Leftrightarrow (r1_xxreal_0 X0 X1))) \tag{6}$$

Assume the following.

$$\begin{aligned} & ((v2_xreal_0 \ np_1) \wedge (m2_subset_1 \ np_1 \ k1_numbers \ k5_numbers)) \wedge \\ & ((m1_subset_1 \ np_1 \ k5_numbers) \wedge (m1_subset_1 \ np_1 \ k1_numbers)) \end{aligned} \quad (7)$$

Assume the following.

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

Assume the following.

$$\forall X0. \forall X1. (m2_finseq_1 \ X1 \ X0) \Leftrightarrow (m1_finseq_1 \ X1 \ X0) \quad (9)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (10)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((m1_subset_1 \ X0 \ k5_numbers) \wedge (v7_ordinal1 \\ & \ X1)) \Rightarrow (k2_nat_1 \ X0 \ X1 = k2_xcmplx_0 \ X0 \ X1) \end{aligned} \quad (11)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((v7_ordinal1 \ X0) \wedge (m1_subset_1 \ X1 \ k5_numbers)) \Rightarrow \\ & (k1_nat_1 \ X0 \ X1 = k2_xcmplx_0 \ X0 \ X1) \end{aligned} \quad (12)$$

Assume the following.

$$(\neg v1_xboole_0 \ k4_ordinal1) \wedge (v3_ordinal1 \ k4_ordinal1) \quad (13)$$

Assume the following.

$$v3_membered \ k1_numbers \quad (14)$$

Assume the following.

$$\neg v1_xboole_0 \ k1_numbers \quad (15)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v1_xboole_0 \ X0) \wedge ((\neg v1_xboole_0 \ X1) \wedge \\ & (m1_subset_1 \ X1 \ (k1_zfmisc_1 \ X0)))) \Rightarrow (\forall X2. (m2_subset_1 \\ & \ X2 \ X0 \ X1) \Rightarrow (m1_subset_1 \ X2 \ X0)) \end{aligned} \quad (16)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (m2_finseq_1 \ X1 \ X0) \Rightarrow ((v1_funct_1 \ X1) \wedge \\ & (v1_finseq_1 \ X1) \wedge (m1_subset_1 \ X1 \ (k1_zfmisc_1 \ (k2_zfmisc_1 \ k5_numbers \\ & \ X0)))) \end{aligned} \quad (17)$$

Assume the following.

$$\forall X0.\forall X1.(m1_finseq_1 X1 X0)\Rightarrow((v1_relat_1 X1)\wedge(v1_funct_1 X1)\wedge(v1_finseq_1 X1)) \quad (18)$$

Assume the following.

$$m1_subset_1 k5_numbers (k1_zfmisc_1 k1_numbers) \quad (19)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0)\wedge((v1_funct_1 X0)\wedge((v1_finseq_1 X0)\wedge(v1_matrix_1 X0))))\Rightarrow(m1_subset_1 (k1_matrix_1 X0) k5_numbers) \quad (20)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xxreal_0 X0)\wedge(v1_xxreal_0 X1))\Rightarrow((r1_xxreal_0 X0 X1)\vee(r1_xxreal_0 X1 X0)) \quad (21)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k4_ordinal1)\Rightarrow(v7_ordinal1 X0) \quad (22)$$

Assume the following.

$$\forall X0.(v3_membered X0)\Rightarrow(v2_membered X0) \quad (23)$$

Assume the following.

$$\forall X0.(v2_membered X0)\Rightarrow(\forall X1.(m1_subset_1 X1 X0)\Rightarrow(v1_xxreal_0 X1)) \quad (24)$$

Theorem 1

$$\begin{aligned} &\forall X0.(m2_subset_1 X0 k1_numbers k5_numbers)\Rightarrow(\forall X1. \\ &(m2_subset_1 X1 k1_numbers k5_numbers)\Rightarrow(\forall X2.(m2_subset_1 \\ &X2 k1_numbers k5_numbers)\Rightarrow(\forall X3.((\neg v3_relat_1 X3)\wedge((v1_matrix_1 \\ &X3)\wedge((v2_goboard1 X3)\wedge((v3_goboard1 X3)\wedge((v4_goboard1 X3)\wedge \\ &((v5_goboard1 X3)\wedge(m2_finseq_1 X3 (k3_finseq_2 (u1_struct_0 \\ &(k15_euclid np_2))))))))))\Rightarrow(((k1_matrix_1 X3 = k2_nat_1 X0 np_1)\wedge \\ &((X1 \in k2_finseq_1 X0)\wedge(X2 \in k4_finseq_1 X3))\Rightarrow((r1_xxreal_0 X0 \\ &k6_numbers)\vee((X1 \in k2_finseq_1 (k1_matrix_1 X3))\wedge((k3_matrix_1 \\ &(u1_struct_0 (k15_euclid np_2)) (k3_goboard1 X3 (k1_matrix_1 \\ &X3)) X2 X1 = k3_matrix_1 (u1_struct_0 (k15_euclid np_2)) X3 X2 X1)\wedge \\ &(k1_matrix_1 X3 \in k2_finseq_1 (k1_matrix_1 X3)))))))))) \end{aligned}$$