

t30_goboard6
(TMRiuzhJxRYbfDh5uQ57qQi8b2ij1eppQK7)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ 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 $v3_relat_1 : \iota \Rightarrow o$ 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 $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k1_tops_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_goboard5 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k17_euclid : \iota \Rightarrow \iota$ be given. Let $k3_matrix_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_nat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $k19_euclid : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k18_euclid : \iota \Rightarrow \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k6_numbers : \iota$ be given. Let $k1_numbers : \iota$ 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 $np_0 : \iota$ be given. Let $k2_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v6_membered : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (X0 = k1_xboole_0) \quad (1)$$

Assume the following.

$$\forall X0.(v1_xxreal_0 X0) \Rightarrow (\forall X1.(v1_xxreal_0 X1) \Rightarrow ((k17_euclid (k19_euclid X0 X1) = X0) \wedge (k18_euclid (k19_euclid X0 X1) = X1))) \quad (2)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow ((\neg r1_xxreal_0 np_1 X0) \Rightarrow (X0 = k6_numbers)) \quad (3)$$

Assume the following.

$$\begin{aligned}
& \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.((\neg v3_relat_1 \\
& X1) \wedge ((v1_matrix_1 X1) \wedge ((v2_goboard1 X1) \wedge ((v3_goboard1 X1) \wedge \\
& ((v4_goboard1 X1) \wedge ((v5_goboard1 X1) \wedge (m2_finseq_1 X1 (k3_finseq_2 \\
& (u1_struct_0 (k15_euclid np_2)))))))))) \Rightarrow ((r1_xxreal_0 np_1 \\
& X0) \Rightarrow ((r1_xxreal_0 (k3_finseq_1 X1) X0) \vee (k1_tops_1 (k15_euclid \\
& np_2) (k1_goboard5 X1 X0) = ReplSep2 (toset (\lambda X2 : \iota.m1_subset_1 \\
& X2 k1_numbers) (\lambda X2 : \iota.toset (\lambda X3 : \iota.m1_subset_1 X3 \\
& k1_numbers) (\lambda X2 : \iota.\lambda X3 : \iota.(\neg r1_xxreal_0 X2 (k17_euclid \\
& (k3_matrix_1 (u1_struct_0 (k15_euclid np_2)) X1 X0 np_1)))) \wedge \\
& (\neg r1_xxreal_0 (k17_euclid (k3_matrix_1 (u1_struct_0 (k15_euclid \\
& np_2)) X1 (k2_nat_1 X0 np_1) np_1)) X2)) (\lambda X2 : \iota.\lambda X3 : \\
& \iota.k19_euclid X2 X3))))))
\end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v3_relat_1 X0) \wedge ((v1_matrix_1 X0) \wedge ((v2_goboard1 \\
& X0) \wedge ((v3_goboard1 X0) \wedge ((v4_goboard1 X0) \wedge ((v5_goboard1 X0) \wedge \\
& (m2_finseq_1 X0 (k3_finseq_2 (u1_struct_0 (k15_euclid np_2)))))))))) \Rightarrow \\
& (k1_tops_1 (k15_euclid np_2) (k1_goboard5 X0 k6_numbers) = ReplSep2 \\
& (toset (\lambda X1 : \iota.m1_subset_1 X1 k1_numbers) (\lambda X1 : \iota. \\
& toset (\lambda X2 : \iota.m1_subset_1 X2 k1_numbers) (\lambda X1 : \iota.\lambda X2 : \\
& \iota.\neg r1_xxreal_0 (k17_euclid (k3_matrix_1 (u1_struct_0 (k15_euclid \\
& np_2)) X0 np_1 np_1)) X1) (\lambda X1 : \iota.\lambda X2 : \iota.k19_euclid \\
& X1 X2))
\end{aligned} \tag{5}$$

Assume the following.

$$\begin{aligned}
& ((v2_xxreal_0 np_1) \wedge (m2_subset_1 np_1 k1_numbers k5_numbers)) \wedge \\
& ((m1_subset_1 np_1 k5_numbers) \wedge (m1_subset_1 np_1 k1_numbers))
\end{aligned} \tag{6}$$

Assume the following.

$$v1_xboole_0 np_0 \tag{7}$$

Assume the following.

$$k2_xcmplx_0 np_1 np_0 = np_1 \tag{8}$$

Assume the following.

$$k6_numbers = k1_xboole_0 \tag{9}$$

Assume the following.

$$k5_numbers = k4_ordinal1 \tag{10}$$

Assume the following.

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

Assume the following.

$$v6_membered\ k4_ordinal1 \quad (12)$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1\ X0\ k5_numbers)\wedge(v7_ordinal1\ X1))\Rightarrow(k2_nat_1\ X0\ X1 = k2_nat_1\ X1\ X0) \quad (13)$$

Assume the following.

$$\forall X0.(m1_subset_1\ X0\ k1_numbers)\Rightarrow(v1_xreal_0\ X0) \quad (14)$$

Assume the following.

$$\forall X0.(v6_membered\ X0)\Rightarrow(\forall X1.(m1_subset_1\ X1\ X0)\Rightarrow(v7_ordinal1\ X1)) \quad (15)$$

Theorem 1

$$\begin{aligned} & \forall X0.(m1_subset_1\ X0\ k5_numbers)\Rightarrow(\forall X1.(m1_subset_1 \\ & \quad X1\ (u1_struct_0\ (k15_euclid\ np_2)))\Rightarrow(\forall X2.((\neg v3_relat_1 \\ & \quad X2)\wedge((v1_matrix_1\ X2)\wedge((v2_goboard1\ X2)\wedge((v3_goboard1\ X2)\wedge \\ & \quad ((v4_goboard1\ X2)\wedge((v5_goboard1\ X2)\wedge(m2_finseq_1\ X2\ (k3_finseq_2 \\ & \quad (u1_struct_0\ (k15_euclid\ np_2))))))))))\Rightarrow(\neg(\neg r1_xreal_0\ (\\ & \quad k3_finseq_1\ X2)\ X0)\wedge((X1 \in k1_tops_1\ (k15_euclid\ np_2)\ (k1_goboard5 \\ & \quad X2\ X0))\wedge(r1_xreal_0\ (k17_euclid\ (k3_matrix_1\ (u1_struct_0\ (\\ & \quad k15_euclid\ np_2))\ X2\ (k2_nat_1\ X0\ np_1)\ np_1))\ (k17_euclid\ X1)))))) \end{aligned}$$