

t48_jordan4

(TMPEnEbtSetsnT7UDyEdZkTvtjXtz9aV3DH)

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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 $r3_jordan4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_topreal4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_topreal1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r2_jordan4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_jordan4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0. ((\neg v1_xboole_0 X0) \wedge (\neg v3_funct_1 X0) \wedge ((v1_finseq_6 \\
 & X0 (u1_struct_0 (k15_euclid np_2))) \wedge ((v1_topreal1 X0) \wedge ((v2_topreal1 \\
 & X0) \wedge ((v1_goboard5 X0) \wedge ((v2_goboard5 X0) \wedge (m2_finseq_1 X0 (u1_struct_0 \\
 & (k15_euclid np_2)))))))))) \Rightarrow (\forall X1. (m2_finseq_1 X1 (u1_struct_0 \\
 & (k15_euclid np_2))) \Rightarrow (\forall X2. (m1_subset_1 X2 k5_numbers) \Rightarrow \\
 & (\forall X3. (m1_subset_1 X3 k5_numbers) \Rightarrow ((r2_jordan4 X0 X1 X2 \\
 & X3) \Rightarrow ((X2 = X3) \vee (r1_topreal4 (k3_topreal1 np_2 X1) (k7_partfun1 \\
 & (u1_struct_0 (k15_euclid np_2)) X0 X2) (k7_partfun1 (u1_struct_0 \\
 & (k15_euclid np_2)) X0 X3)))))))))
 \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
 & \forall X0. ((\neg v1_xboole_0 X0) \wedge (\neg v3_funct_1 X0) \wedge ((v1_finseq_6 \\
 & X0 (u1_struct_0 (k15_euclid np_2))) \wedge ((v1_topreal1 X0) \wedge ((v2_topreal1 \\
 & X0) \wedge ((v1_goboard5 X0) \wedge ((v2_goboard5 X0) \wedge (m2_finseq_1 X0 (u1_struct_0 \\
 & (k15_euclid np_2)))))))))) \Rightarrow (\forall X1. (m2_finseq_1 X1 (u1_struct_0 \\
 & (k15_euclid np_2))) \Rightarrow (\forall X2. (m1_subset_1 X2 k5_numbers) \Rightarrow \\
 & (\forall X3. (m1_subset_1 X3 k5_numbers) \Rightarrow ((r1_jordan4 X0 X1 X2 \\
 & X3) \Rightarrow ((X2 = X3) \vee (r1_topreal4 (k3_topreal1 np_2 X1) (k7_partfun1 \\
 & (u1_struct_0 (k15_euclid np_2)) X0 X2) (k7_partfun1 (u1_struct_0 \\
 & (k15_euclid np_2)) X0 X3)))))))))
 \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v1_xboole_0 X0) \wedge (\neg v3_funct_1 X0) \wedge ((v1_finseq_6 \\
& X0 (u1_struct_0 (k15_euclid np_2))) \wedge ((v1_topreal1 X0) \wedge ((v2_topreal1 \\
& X0) \wedge ((v1_goboard5 X0) \wedge ((v2_goboard5 X0) \wedge (m2_finseq_1 X0 (u1_struct_0 \\
& (k15_euclid np_2)))))))))) \Rightarrow (\forall X1.(m2_finseq_1 X1 (u1_struct_0 \\
& (k15_euclid np_2))) \Rightarrow (\forall X2.(m1_subset_1 X2 k5_numbers) \Rightarrow \\
& (\forall X3.(m1_subset_1 X3 k5_numbers) \Rightarrow ((r3_jordan4 X0 X1 X2 \\
& X3) \Leftrightarrow ((r1_jordan4 X0 X1 X2 X3) \vee (r2_jordan4 X0 X1 X2 X3))))))
\end{aligned} \tag{3}$$

Theorem 1

$$\begin{aligned}
& \forall X0.((\neg v1_xboole_0 X0) \wedge (\neg v3_funct_1 X0) \wedge ((v1_finseq_6 \\
& X0 (u1_struct_0 (k15_euclid np_2))) \wedge ((v1_topreal1 X0) \wedge ((v2_topreal1 \\
& X0) \wedge ((v1_goboard5 X0) \wedge ((v2_goboard5 X0) \wedge (m2_finseq_1 X0 (u1_struct_0 \\
& (k15_euclid np_2)))))))))) \Rightarrow (\forall X1.(m2_finseq_1 X1 (u1_struct_0 \\
& (k15_euclid np_2))) \Rightarrow (\forall X2.(m1_subset_1 X2 k5_numbers) \Rightarrow \\
& (\forall X3.(m1_subset_1 X3 k5_numbers) \Rightarrow ((r3_jordan4 X0 X1 X2 \\
& X3) \Rightarrow ((X2 = X3) \vee (r1_topreal4 (k3_topreal1 np_2 X1) (k7_partfun1 \\
& (u1_struct_0 (k15_euclid np_2)) X0 X2) (k7_partfun1 (u1_struct_0 \\
& (k15_euclid np_2)) X0 X3))))))
\end{aligned}$$