

t39_jordan23

(TMQF7MvmJnkpEPdarY7v9n6HJPGsaZyXFmk)

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Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ 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 $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_jordan23 : \iota \Rightarrow o$ be given. Let $v1_topreal1 : \iota \Rightarrow o$ be given. Let $v2_topreal1 : \iota \Rightarrow o$ be given. Let $v3_topreal1 : \iota \Rightarrow o$ be given. Let $k3_topreal1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $r1_jordan3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_jordan3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_finseq_6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_jordan3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k12_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0.(m2_finseq_1 X0 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\
 & (\forall X1.(m2_finseq_1 X1 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\
 & (\forall X2.(m1_subset_1 X2 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\
 & (((v1_jordan23 X0) \wedge ((v1_topreal1 X0) \wedge ((v2_topreal1 X0) \wedge ((v3_topreal1 \\
 & X0) \wedge ((X2 \in k3_topreal1 np_2 X0) \wedge (X1 = k8_finseq_1 (u1_struct_0 \\
 & (k15_euclid np_2)) (k3_finseq_6 (u1_struct_0 (k15_euclid np_2)) \\
 & X0 np_1 (k1_jordan3 X0 X2)) (k12_finseq_1 (u1_struct_0 (k15_euclid \\
 & np_2)) X2)))))) \Rightarrow ((X2 = k1_funct_1 X0 np_1) \vee (r1_jordan3 X1 (\\
 & k7_partfun1 (u1_struct_0 (k15_euclid np_2)) X0 np_1) X2))))))
 \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0. \forall X1. (m2_finseq_1 X1 X0) \Leftrightarrow (m1_finseq_1 X1 X0) \tag{2}$$

Assume the following.

$$\begin{aligned}
 & \forall X0. \forall X1. ((m1_finseq_1 X0 (u1_struct_0 (k15_euclid \\
 & np_2))) \wedge (m1_subset_1 X1 (u1_struct_0 (k15_euclid np_2)))) \Rightarrow \\
 & (m2_finseq_1 (k3_jordan3 X0 X1) (u1_struct_0 (k15_euclid np_2)))
 \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(m2_finseq_1 X0 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\
& (\forall X1.(m1_subset_1 X1 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\
& (((X1 \neq k1_funct_1 X0 np_1) \Rightarrow (k3_jordan3 X0 X1 = k8_finseq_1 (u1_struct_0 \\
& (k15_euclid np_2)) (k3_finseq_6 (u1_struct_0 (k15_euclid np_2)) \\
& X0 np_1 (k1_jordan3 X0 X1)) (k12_finseq_1 (u1_struct_0 (k15_euclid \\
& np_2)) X1))) \wedge ((X1 = k1_funct_1 X0 np_1) \Rightarrow (k3_jordan3 X0 X1 = k12_finseq_1 \\
& (u1_struct_0 (k15_euclid np_2)) X1))))
\end{aligned} \tag{4}$$

Theorem 1

$$\begin{aligned}
& \forall X0.(m2_finseq_1 X0 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\
& (\forall X1.(m1_subset_1 X1 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\
& (((v1_jordan23 X0) \wedge ((v1_topreal1 X0) \wedge ((v2_topreal1 X0) \wedge ((v3_topreal1 \\
& X0) \wedge (X1 \in k3_topreal1 np_2 X0)))))) \Rightarrow ((X1 = k1_funct_1 X0 np_1) \vee \\
& (r1_jordan3 (k3_jordan3 X0 X1) (k7_partfun1 (u1_struct_0 (k15_euclid \\
& np_2)) X0 np_1) X1))))
\end{aligned}$$