

t43_jordan1h (TMNS- gfkC1MYLRff2E9bEFVLHFjvGRqvou1F)

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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 $k3_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_pre_topc : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_goboard9 : \iota \Rightarrow \iota$ be given. Let $k2_goboard9 : \iota \Rightarrow \iota$ be given. Let $k1_goboard9 : \iota \Rightarrow \iota$ be given. Let $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_finseq_5 : \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_finseq_1 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v1_xboole_0 X0) \wedge (\neg v3_funct_1 X0) \wedge (v1_finseq_6 \\ & X0 (u1_struct_0 (k15_euclid np_2))) \wedge (v1_topreal1 X0) \wedge (v2_topreal1 \\ & X0) \wedge (v1_goboard5 X0) \wedge (v2_goboard5 X0) \wedge (m2_finseq_1 X0 (u1_struct_0 \\ & (k15_euclid np_2)))))) \Rightarrow (k3_subset_1 (u1_struct_0 (k15_euclid \\ & np_2)) (k2_pre_topc (k15_euclid np_2) (k2_goboard9 X0)) = k3_goboard9 \\ & X0) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v1_xboole_0 X0) \wedge (\neg v3_funct_1 X0) \wedge (v1_finseq_6 \\ & X0 (u1_struct_0 (k15_euclid np_2))) \wedge (v1_topreal1 X0) \wedge (v2_topreal1 \\ & X0) \wedge (v1_goboard5 X0) \wedge (v2_goboard5 X0) \wedge (m2_finseq_1 X0 (u1_struct_0 \\ & (k15_euclid np_2)))))) \Rightarrow (k3_goboard9 (k1_goboard9 X0) = \\ & k2_goboard9 X0) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v1_xboole_0 X0) \wedge (\neg v3_funct_1 X0) \wedge (v1_finseq_6 \\ & X0 (u1_struct_0 (k15_euclid np_2))) \wedge (v1_topreal1 X0) \wedge (v2_topreal1 \\ & X0) \wedge (v1_goboard5 X0) \wedge (v2_goboard5 X0) \wedge (m2_finseq_1 X0 (u1_struct_0 \\ & (k15_euclid np_2)))))) \Rightarrow (k3_goboard9 X0 = k2_goboard9 (k1_goboard9 \\ & X0)) \end{aligned} \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.(m2_finseq_1 X1 X0)\Leftrightarrow(m1_finseq_1 X1 X0) \quad (4)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v1_xboole_0 X0)\wedge((v1_finseq_6 X0 (u1_struct_0 \\ (k15_euclid np_2)))\wedge((v1_topreal1 X0)\wedge((v2_topreal1 X0)\wedge(\\ (v1_goboard5 X0)\wedge((v2_goboard5 X0)\wedge(m1_finseq_1 X0 (u1_struct_0 \\ (k15_euclid np_2))))))))))\Rightarrow(k1_goboard9 X0 = k3_finseq_5 X0) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1_relat_1 X0)\wedge((v1_funct_1 X0)\wedge((\neg v3_funct_1 \\ X0)\wedge(v1_finseq_1 X0))))\Rightarrow((v1_relat_1 (k3_finseq_5 X0))\wedge((v1_funct_1 \\ (k3_finseq_5 X0))\wedge((\neg v3_funct_1 (k3_finseq_5 X0))\wedge(v1_finseq_1 \\ (k3_finseq_5 X0)))))) \end{aligned} \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.(m1_finseq_1 X1 X0)\Rightarrow((v1_relat_1 X1)\wedge(\\ (v1_funct_1 X1)\wedge(v1_finseq_1 X1))) \quad (7)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v1_xboole_0 X0)\wedge((v1_finseq_6 X0 (u1_struct_0 \\ (k15_euclid np_2)))\wedge((v1_topreal1 X0)\wedge((v2_topreal1 X0)\wedge(\\ (v1_goboard5 X0)\wedge((v2_goboard5 X0)\wedge(m1_finseq_1 X0 (u1_struct_0 \\ (k15_euclid np_2))))))))))\Rightarrow((\neg v1_xboole_0 (k1_goboard9 X0))\wedge \\ ((v1_finseq_6 (k1_goboard9 X0) (u1_struct_0 (k15_euclid np_2)))\wedge \\ ((v1_topreal1 (k1_goboard9 X0))\wedge((v2_topreal1 (k1_goboard9 \\ X0))\wedge((v1_goboard5 (k1_goboard9 X0))\wedge((v2_goboard5 (k1_goboard9 \\ X0))\wedge(m2_finseq_1 (k1_goboard9 X0) (u1_struct_0 (k15_euclid \\ np_2)))))))))) \end{aligned} \quad (8)$$

Theorem 1

$$\begin{aligned} \forall X0.((\neg v1_xboole_0 X0)\wedge((\neg v3_funct_1 X0)\wedge((v1_finseq_6 \\ X0 (u1_struct_0 (k15_euclid np_2)))\wedge((v1_topreal1 X0)\wedge((v2_topreal1 \\ X0)\wedge((v1_goboard5 X0)\wedge((v2_goboard5 X0)\wedge(m2_finseq_1 X0 (u1_struct_0 \\ (k15_euclid np_2))))))))))\Rightarrow(k3_subset_1 (u1_struct_0 (k15_euclid \\ np_2)) (k2_pre_topc (k15_euclid np_2) (k3_goboard9 X0)) = k2_goboard9 \\ X0) \end{aligned}$$