

t27_jordan17 (TMSKFKnwWTBhEfD- hhvL3XejqwZWBvp9h6Nr)

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Let $v1_topreal2 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ 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 $r1_jordan17 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_jordan6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0. (& (v1_topreal2 X0) \wedge (m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 \\ & (k15_euclid np_2)))))) \Rightarrow (\forall X1. (m1_subset_1 X1 (u1_struct_0 \\ & (k15_euclid np_2)))) \Rightarrow (\forall X2. (m1_subset_1 X2 (u1_struct_0 \\ & (k15_euclid np_2)))) \Rightarrow (\neg (X1 \in X0) \wedge ((X2 \in X0) \wedge ((\neg r1_jordan6 X0 X1 \\ & X2) \wedge (\neg r1_jordan6 X0 X2 X1)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} \forall X0. (& (m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 (k15_euclid \\ & np_2)))))) \Rightarrow (\forall X1. (m1_subset_1 X1 (u1_struct_0 (k15_euclid \\ & np_2)))) \Rightarrow (\forall X2. (m1_subset_1 X2 (u1_struct_0 (k15_euclid \\ & np_2)))) \Rightarrow (\forall X3. (m1_subset_1 X3 (u1_struct_0 (k15_euclid \\ & np_2)))) \Rightarrow (\forall X4. (m1_subset_1 X4 (u1_struct_0 (k15_euclid \\ & np_2)))) \Rightarrow ((r1_jordan17 X0 X1 X2 X3 X4) \Leftrightarrow (\neg (\neg (r1_jordan6 X0 X1 X2) \wedge \\ & ((r1_jordan6 X0 X2 X3) \wedge (r1_jordan6 X0 X3 X4))) \wedge ((\neg (r1_jordan6 \\ & X0 X2 X3) \wedge ((r1_jordan6 X0 X3 X4) \wedge (r1_jordan6 X0 X4 X1))) \wedge ((\neg (r1_jordan6 \\ & X0 X3 X4) \wedge ((r1_jordan6 X0 X4 X1) \wedge (r1_jordan6 X0 X1 X2))) \wedge (\neg (r1_jordan6 \\ & X0 X4 X1) \wedge ((r1_jordan6 X0 X1 X2) \wedge (r1_jordan6 X0 X2 X3)))))))))) \end{aligned} \tag{2}$$

Theorem 1

$$\begin{aligned} & \forall X0.((v1_topreal2\ X0)\wedge(m1_subset_1\ X0\ (k1_zfmisc_1\ (u1_struct_0 \\ & \quad (k15_euclid\ np_2))))))\Rightarrow(\forall X1.(m1_subset_1\ X1\ (u1_struct_0 \\ & \quad (k15_euclid\ np_2)))\Rightarrow(\forall X2.(m1_subset_1\ X2\ (u1_struct_0 \\ & \quad (k15_euclid\ np_2)))\Rightarrow(\forall X3.(m1_subset_1\ X3\ (u1_struct_0 \\ & \quad (k15_euclid\ np_2)))\Rightarrow(\forall X4.(m1_subset_1\ X4\ (u1_struct_0 \\ & \quad (k15_euclid\ np_2))))\Rightarrow(\neg(X1\in X0)\wedge((X2\in X0)\wedge((X3\in X0)\wedge((X4\in X0)\wedge \\ & \quad ((\neg r1_jordan17\ X0\ X1\ X2\ X3\ X4)\wedge((\neg r1_jordan17\ X0\ X1\ X2\ X4\ X3)\wedge((\neg \\ & \quad r1_jordan17\ X0\ X1\ X3\ X2\ X4)\wedge((\neg r1_jordan17\ X0\ X1\ X3\ X4\ X2)\wedge((\neg r1_jordan17 \\ & \quad X0\ X1\ X4\ X2\ X3)\wedge(\neg r1_jordan17\ X0\ X1\ X4\ X3\ X2)))))))))))))) \end{aligned}$$