

l172_jordan (TMUfyfaWhcAtgH- fzEBo58RyPbRBxkMPQFnh)

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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 $r1_jordan24 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k19_euclid : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_real_1 : \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k6_numbers : \iota$ be given. Let $r1_xboole_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_rltopsp1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_3 : \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 (k15_euclid \\ & np_2)))) \Rightarrow ((r1_jordan24 np_2 X0 (k19_euclid (k1_real_1 np_1) \\ & k6_numbers) (k19_euclid np_1 k6_numbers)) \Rightarrow (r1_xboole_0 X0 (\\ & k1_rltopsp1 (k15_euclid np_2) (k19_euclid (k1_real_1 np_1) \\ & (k1_real_1 np_3)) (k19_euclid np_1 (k1_real_1 np_3)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.(\neg(\neg r1_xboole_0 X0 X1) \wedge (\forall X2.\neg(X2 \in \\ & X0) \wedge (X2 \in X1))) \wedge (\neg(\exists X2.(X2 \in X0) \wedge (X2 \in X1)) \wedge (r1_xboole_0 \\ & X0 X1)) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & r1_tarski (k1_rltopsp1 (k15_euclid np_2) (k19_euclid (k1_real_1 \\ & np_1) (k1_real_1 np_3)) (k19_euclid k6_numbers (k1_real_1 np_3))) \\ & (k1_rltopsp1 (k15_euclid np_2) (k19_euclid (k1_real_1 np_1) \\ & (k1_real_1 np_3)) (k19_euclid np_1 (k1_real_1 np_3))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.(r1_tarski X0 X1) \Leftrightarrow (\forall X2.(X2 \in X0) \Rightarrow \\ & (X2 \in X1)) \end{aligned} \quad (4)$$

Theorem 1

$$\begin{aligned} \forall X0.((v1_topreal2\ X0)\wedge(m1_subset_1\ X0\ (k1_zfmisc_1\ (u1_struct_0 \\ (k15_euclid\ np_2))))))\Rightarrow((r1_jordan24\ np_2\ X0\ (k19_euclid\ (k1_real_1 \\ np_1)\ k6_numbers)\ (k19_euclid\ np_1\ k6_numbers))\Rightarrow(r1_xboole_0 \\ (k1_rltopsp1\ (k15_euclid\ np_2)\ (k19_euclid\ (k1_real_1\ np_1) \\ (k1_real_1\ np_3))\ (k19_euclid\ k6_numbers\ (k1_real_1\ np_3))) \\ X0)) \end{aligned}$$