

t47_jordan1k
(TMQ4vJNtLCSi5wc9xpaaZTrw7tzdoEzeZdd)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ 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 $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_jordan1k : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_jordan1k : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_domain_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\ & \quad X1 (k1_zfmisc_1 (u1_struct_0 (k15_euclid X0)))) \Rightarrow (\forall X2. \\ & ((\neg v1_xboole_0 X2) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 \\ & \quad (k15_euclid X0)))) \Rightarrow (\forall X3.((\neg v1_xboole_0 X3) \wedge (m1_subset_1 \\ & \quad X3 (k1_zfmisc_1 (u1_struct_0 (k15_euclid X0)))) \Rightarrow ((r1_tarski \\ & \quad X3 X1) \Rightarrow (r1_xxreal_0 (k1_jordan1k X0 X2 X1) (k1_jordan1k X0 X2 X3)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1_xboole_0 X0) \wedge (m1_subset_1 X1 X0)) \Rightarrow (k6_domain_1 X0 X1 = k1_tarski X1) \tag{2}$$

Assume the following.

$$\forall X0.\neg v1_xboole_0 (k1_tarski X0) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1_xboole_0 X0) \wedge (m1_subset_1 X1 X0)) \Rightarrow (m1_subset_1 (k6_domain_1 X0 X1) (k1_zfmisc_1 X0)) \tag{4}$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\ & \quad X1 (u1_struct_0 (k15_euclid X0))) \Rightarrow (\forall X2.(m1_subset_1 X2 \\ & \quad (k1_zfmisc_1 (u1_struct_0 (k15_euclid X0)))) \Rightarrow (k5_jordan1k X0 \\ & \quad X1 X2 = k1_jordan1k X0 (k6_domain_1 (u1_struct_0 (k15_euclid X0)) \\ & \quad X1) X2))) \end{aligned} \tag{5}$$

Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 X0)) \Rightarrow (v1_xboole_0 X1)) \quad (6)$$

Theorem 1

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.((\neg v1_xboole_0 \\ & X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 (k15_euclid X0)))))) \Rightarrow \\ & (\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 (k15_euclid \\ & X0)))) \Rightarrow ((r1_tarski X1 X2) \Rightarrow (\forall X3.(m1_subset_1 X3 (u1_struct_0 \\ & (k15_euclid X0)) \Rightarrow (r1_xreal_0 (k5_jordan1k X0 X3 X2) (k5_jordan1k \\ & X0 X3 X1)))))) \end{aligned}$$