

t50\_jordan1k  
(TMQrB4LwNgQKvTgoCdXNr3YsyHy6vG2iTi9)

October 27, 2020

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  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k5\_jordan1k : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_topreal6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_domain\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_tarski : \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0.(m1\_subset\_1 X0 k5\_numbers) \Rightarrow (\forall X1.(m1\_subset\_1 \\ & X1 (u1\_struct\_0 (k15\_euclid X0))) \Rightarrow (\forall X2.(m1\_subset\_1 X2 \\ & (u1\_struct\_0 (k15\_euclid X0))) \Rightarrow (k5\_jordan1k X0 X1 (k6\_domain\_1 \\ & (u1\_struct\_0 (k15\_euclid X0)) X2) = k1\_topreal6 X0 X1 X2))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1\_subset\_1 X0 k5\_numbers) \Rightarrow (\forall X1.((\neg v1\_xboole\_0 \\ & X1) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid X0)))) \Rightarrow \\ & (\forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid \\ & X0)))) \Rightarrow ((r1\_tarski X1 X2) \Rightarrow (\forall X3.(m1\_subset\_1 X3 (u1\_struct\_0 \\ & (k15\_euclid X0))) \Rightarrow (r1\_xxreal\_0 (k5\_jordan1k X0 X3 X2) (k5\_jordan1k \\ & X0 X3 X1)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1 X0 (k1\_zfmisc\_1 X1)) \Leftrightarrow (r1\_tarski X0 X1) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0 X0) \wedge (m1\_subset\_1 X1 X0)) \Rightarrow (k6\_domain\_1 X0 X1 = k1\_tarski X1) \quad (4)$$

Assume the following.

$$\forall X0.\neg v1\_xboole\_0 (k1\_tarski X0) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0 X0)\wedge(m1\_subset\_1 X1 X0))\Rightarrow (m1\_subset\_1 (k6\_domain\_1 X0 X1) (k1\_zfmisc\_1 X0)) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0 X0)\Rightarrow((m1\_subset\_1 X1 X0)\Leftrightarrow (X1 \in X0)))\wedge((v1\_xboole\_0 X0)\Rightarrow((m1\_subset\_1 X1 X0)\Leftrightarrow(v1\_xboole\_0 X1))) \quad (7)$$

Assume the following.

$$\forall X0.(v1\_xboole\_0 X0)\Rightarrow(\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 X0))\Rightarrow(v1\_xboole\_0 X1)) \quad (8)$$

**Theorem 1**

$$\begin{aligned} &\forall X0.(m1\_subset\_1 X0 k5\_numbers)\Rightarrow(\forall X1.((\neg v1\_xboole\_0 \\ &X1)\wedge(m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid X0))))))\Rightarrow \\ &(\forall X2.(m1\_subset\_1 X2 (u1\_struct\_0 (k15\_euclid X0)))\Rightarrow( \\ &\forall X3.(m1\_subset\_1 X3 (u1\_struct\_0 (k15\_euclid X0)))\Rightarrow(( \\ &X3 \in X1)\Rightarrow(r1\_xxreal\_0 (k5\_jordan1k X0 X2 X1) (k1\_topreal6 X0 X2 X3)))))) \end{aligned}$$