

t127\_jordan2c (TM-  
csBF8giNCebdCqyu1N91wnQKDJPhM3buT)

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Let  $v2\_compts\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k15\_euclid : \iota \Rightarrow \iota$  be given. Let  $np\_2 : \iota$  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  $r1\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k5\_topreal1 : \iota \Rightarrow \iota$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_jordan2c : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v2\_connsp\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v9\_rltopsp1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v2\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_numbers : \iota$  be given. Let  $k5\_numbers : \iota$  be given. Let  $k4\_ordinal1 : \iota$  be given. Let  $v1\_convex1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0. ((v2\_compts\_1 X0 (k15\_euclid np\_2)) \wedge (m1\_subset\_1 \\ & X0 (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid np\_2)))) \Rightarrow (\forall X1. \\ & ((v2\_connsp\_1 X1 (k15\_euclid np\_2)) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 \\ & (u1\_struct\_0 (k15\_euclid np\_2)))) \Rightarrow ((r1\_xboole\_0 X1 X0) \Rightarrow (( \\ & v9\_rltopsp1 X1 (k15\_euclid np\_2)) \vee (r1\_tarski X1 (k2\_jordan2c \\ & np\_2 X0)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0. (m1\_subset\_1 X0 (u1\_struct\_0 (k15\_euclid np\_2))) \Rightarrow (\neg v9\_rltopsp1 (k5\_topreal1 X0) (k15\_euclid np\_2)) \tag{2}$$

Assume the following.

$$\begin{aligned} & ((v2\_xxreal\_0 np\_2) \wedge (m2\_subset\_1 np\_2 k1\_numbers k5\_numbers)) \wedge \\ & ((m1\_subset\_1 np\_2 k5\_numbers) \wedge (m1\_subset\_1 np\_2 k1\_numbers)) \end{aligned} \tag{3}$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \tag{4}$$

Assume the following.

$$\forall X0. (m1\_subset\_1 X0 (u1\_struct\_0 (k15\_euclid np\_2))) \Rightarrow (v1\_convex1 (k5\_topreal1 X0) (k15\_euclid np\_2)) \tag{5}$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 (u1\_struct\_0 (k15\_euclid np\_2))) \Rightarrow (m1\_subset\_1 (k5\_topreal1 X0) (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid np\_2)))) \quad (6)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k4\_ordinal1) \Rightarrow (v7\_ordinal1 X0) \quad (7)$$

Assume the following.

$$\forall X0.(v7\_ordinal1 X0) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid X0)))) \Rightarrow ((v1\_convex1 X1 (k15\_euclid X0)) \Rightarrow (v2\_connsp\_1 X1 (k15\_euclid X0)))) \quad (8)$$

**Theorem 1**

$$\forall X0.((v2\_compts\_1 X0 (k15\_euclid np\_2)) \wedge (m1\_subset\_1 X0 (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid np\_2))))) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 (k15\_euclid np\_2))) \Rightarrow ((r1\_xboole\_0 (k5\_topreal1 X1) X0) \Rightarrow (r1\_tarski (k5\_topreal1 X1) (k2\_jordan2c np\_2 X0))))$$