

# t27\_jordan18 (TMZoZrGAN- fLp4knGMoMUoxs18hwdckHFUaZ)

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Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k5\_numbers : \iota$  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  $r1\_jordan18 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r1\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v2\_pre\_topc : \iota \Rightarrow o$  be given. Let  $l1\_pre\_topc : \iota \Rightarrow o$  be given. Let  $r1\_topreal1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k4\_ordinal1 : \iota$  be given. Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $v13\_algstr\_0 : \iota \Rightarrow o$  be given. Let  $v2\_rlvect\_1 : \iota \Rightarrow o$  be given. Let  $v3\_rlvect\_1 : \iota \Rightarrow o$  be given. Let  $v4\_rlvect\_1 : \iota \Rightarrow o$  be given. Let  $v5\_rlvect\_1 : \iota \Rightarrow o$  be given. Let  $v6\_rlvect\_1 : \iota \Rightarrow o$  be given. Let  $v7\_rlvect\_1 : \iota \Rightarrow o$  be given. Let  $v8\_rlvect\_1 : \iota \Rightarrow o$  be given. Let  $v5\_rltopsp1 : \iota \Rightarrow o$  be given. Let  $l1\_rltopsp1 : \iota \Rightarrow o$  be given. Let  $l1\_rlvect\_1 : \iota \Rightarrow o$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0. \forall X1. (\neg(\neg r1\_xboole\_0 X0 X1) \wedge (\forall X2. \neg(X2 \in X0) \wedge (X2 \in X1))) \wedge (\neg(\exists X2. (X2 \in X0) \wedge (X2 \in X1))) \wedge (r1\_xboole\_0 X0 X1) \quad (1)$$

Assume the following.

$$\forall X0. ((v2\_pre\_topc X0) \wedge (l1\_pre\_topc X0)) \Rightarrow (\forall X1. (m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow (\forall X2. (m1\_subset\_1 X2 (u1\_struct\_0 X0)) \Rightarrow (\forall X3. (m1\_subset\_1 X3 (u1\_struct\_0 X0)) \Rightarrow ((r1\_topreal1 X0 X2 X3 X1) \Rightarrow ((X2 \in X1) \wedge (X3 \in X1))))))) \quad (2)$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \quad (3)$$

Assume the following.

$$\forall X0. (v7\_ordinal1 X0) \Rightarrow ((v2\_pre\_topc (k15\_euclid X0)) \wedge ((v13\_algstr\_0 (k15\_euclid X0)) \wedge ((v2\_rlvect\_1 (k15\_euclid X0)) \wedge ((v3\_rlvect\_1 (k15\_euclid X0)) \wedge ((v4\_rlvect\_1 (k15\_euclid X0)) \wedge ((v5\_rlvect\_1 (k15\_euclid X0)) \wedge ((v6\_rlvect\_1 (k15\_euclid X0)) \wedge ((v7\_rlvect\_1 (k15\_euclid X0)) \wedge ((v8\_rlvect\_1 (k15\_euclid X0)) \wedge (v5\_rltopsp1 (k15\_euclid X0))))))))))))) \quad (4)$$

Assume the following.

$$\forall X0.(l1\_rltopsp1 X0) \Rightarrow ((l1\_rlvect\_1 X0) \wedge (l1\_pre\_topc X0)) \quad (5)$$

Assume the following.

$$\forall X0.(v7\_ordinal1 X0) \Rightarrow ((v5\_rltopsp1 (k15\_euclid X0)) \wedge (l1\_rltopsp1 (k15\_euclid X0))) \quad (6)$$

Assume the following.

$$\begin{aligned} \forall X0.(m1\_subset\_1 X0 k5\_numbers) \Rightarrow (\forall X1.(m1\_subset\_1 \\ X1 (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid X0)))) \Rightarrow (\forall X2. \\ (m1\_subset\_1 X2 (u1\_struct\_0 (k15\_euclid X0)))) \Rightarrow (\forall X3.( \\ m1\_subset\_1 X3 (u1\_struct\_0 (k15\_euclid X0)))) \Rightarrow (\forall X4.(m1\_subset\_1 \\ X4 (u1\_struct\_0 (k15\_euclid X0)))) \Rightarrow (\forall X5.(m1\_subset\_1 X5 \\ (u1\_struct\_0 (k15\_euclid X0)))) \Rightarrow ((r1\_jordan18 X0 X1 X2 X3 X4 X5) \Leftrightarrow \\ (\forall X6.(m1\_subset\_1 X6 (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid \\ X0)))) \Rightarrow (\neg(r1\_topreal1 (k15\_euclid X0) X2 X3 X6) \wedge ((r1\_tarski X6 \\ X1) \wedge (r1\_xboole\_0 X6 (k2\_tarski X4 X5)))))))))) \quad (7) \end{aligned}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(X2 = k2\_tarski X0 X1) \Leftrightarrow (\forall X3. \\ (X3 \in X2) \Leftrightarrow ((X3 = X0) \vee (X3 = X1))) \quad (8)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k4\_ordinal1) \Rightarrow (v7\_ordinal1 X0) \quad (9)$$

**Theorem 1**

$$\begin{aligned} \forall X0.(m1\_subset\_1 X0 k5\_numbers) \Rightarrow (\forall X1.(m1\_subset\_1 \\ X1 (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid X0)))) \Rightarrow (\forall X2. \\ (m1\_subset\_1 X2 (u1\_struct\_0 (k15\_euclid X0)))) \Rightarrow (\forall X3.( \\ m1\_subset\_1 X3 (u1\_struct\_0 (k15\_euclid X0)))) \Rightarrow (\forall X4.(m1\_subset\_1 \\ X4 (u1\_struct\_0 (k15\_euclid X0)))) \Rightarrow (r1\_jordan18 X0 X1 X2 X3 X2 X4)))) \end{aligned}$$