

## t19\_jordan18

(TMcQ3YRq4P6FyuCZSaRH5TZNybXpZ9Q3fWy)

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Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  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  $v2\_compts\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k1\_jordan2c : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k5\_seq\_4 : \iota \Rightarrow \iota$  be given. Let  $k7\_relset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_numbers : \iota$  be given. Let  $k5\_pscomp\_1 : \iota$  be given. Let  $k9\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_topreal1 : \iota \Rightarrow \iota$  be given. Let  $k4\_seq\_4 : \iota \Rightarrow \iota$  be given. Let  $k6\_topreal1 : \iota \Rightarrow \iota$  be given. Let  $v1\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $k17\_euclid : \iota \Rightarrow \iota$  be given. Let  $k19\_euclid : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k18\_euclid : \iota \Rightarrow \iota$  be given. Let  $v1\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $k2\_jordan18 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_jordan18 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_seq\_4 : \iota \Rightarrow \iota$  be given. Let  $k2\_seq\_4 : \iota \Rightarrow \iota$  be given. Let  $v3\_membered : \iota \Rightarrow o$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v2\_membered : \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0.(v1\_xxreal\_0 X0) \Rightarrow (\forall X1.(v1\_xxreal\_0 X1) \Rightarrow ((k17\_euclid (k19\_euclid X0 X1) = X0) \wedge (k18\_euclid (k19\_euclid X0 X1) = X1))) \quad (1)$$

Assume the following.

$$\forall X0.(v1\_xxreal\_0 X0) \Rightarrow (\forall X1.(v1\_xxreal\_0 X1) \Rightarrow (\forall X2.(v1\_xxreal\_0 X2) \Rightarrow (((r1\_xxreal\_0 X0 X1) \wedge (r1\_xxreal\_0 X1 X2)) \Rightarrow (r1\_xxreal\_0 X0 X2)))) \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1\_subset\_1 X0 (u1\_struct\_0 (k15\_euclid np\_2))) \Rightarrow \\ & (\forall X1.((v2\_compts\_1 X1 (k15\_euclid np\_2)) \wedge (m1\_subset\_1 \\ & X1 (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid np\_2)))))) \Rightarrow ((X0 \in k1\_jordan2c \\ & np\_2 X1) \Rightarrow ((\neg r1\_xxreal\_0 (k18\_euclid X0) (k18\_euclid (k2\_jordan18 \\ & X0 X1))) \wedge (\neg r1\_xxreal\_0 (k18\_euclid (k1\_jordan18 X0 X1)) (k18\_euclid \\ & X0)))))) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 (k1\_zfmisc\_1 k1\_numbers)) \Rightarrow (k5\_seq\_4 X0 = k3\_seq\_4 X0) \quad (4)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 (k1\_zfmisc\_1 k1\_numbers)) \Rightarrow (k4\_seq\_4 X0 = k2\_seq\_4 X0) \quad (5)$$

Assume the following.

$$v3\_membered k1\_numbers \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.(m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1))) \Rightarrow (m1\_subset\_1 (k7\_relset\_1 X0 X1 X2 X3) (k1\_zfmisc\_1 X1)) \quad (7)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 (k1\_zfmisc\_1 k1\_numbers)) \Rightarrow (m1\_subset\_1 (k5\_seq\_4 X0) k1\_numbers) \quad (8)$$

Assume the following.

$$(v1\_funct\_1 k5\_pscomp\_1) \wedge ((v1\_funct\_2 k5\_pscomp\_1 (u1\_struct\_0 (k15\_euclid np\_2)) k1\_numbers) \wedge (m1\_subset\_1 k5\_pscomp\_1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid np\_2)) k1\_numbers)))) \quad (9)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 (k1\_zfmisc\_1 k1\_numbers)) \Rightarrow (m1\_subset\_1 (k4\_seq\_4 X0) k1\_numbers) \quad (10)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 (u1\_struct\_0 (k15\_euclid np\_2))) \Rightarrow (m1\_subset\_1 (k18\_euclid X0) k1\_numbers) \quad (11)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 (u1\_struct\_0 (k15\_euclid np\_2))) \Rightarrow (m1\_subset\_1 (k17\_euclid X0) k1\_numbers) \quad (12)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1\_subset\_1 X0 (u1\_struct\_0 (k15\_euclid np\_2))) \Rightarrow \\ & (\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid np\_2)))) \Rightarrow (k2\_jordan18 X0 X1 = k19\_euclid (k17\_euclid X0) (k4\_seq\_4 \\ & (k7\_relset\_1 (u1\_struct\_0 (k15\_euclid np\_2)) k1\_numbers k5\_pscomp\_1 \\ & (k9\_subset\_1 (u1\_struct\_0 (k15\_euclid np\_2)) X1 (k6\_topreal1 X0)))))) \quad (13) \end{aligned}$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1\_subset\_1 X0 (u1\_struct\_0 (k15\_euclid np\_2))) \Rightarrow \\ & (\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid \\ & np\_2)))) \Rightarrow (k1\_jordan18 X0 X1 = k19\_euclid (k17\_euclid X0) (k5\_seq\_4 \\ & (k7\_relset\_1 (u1\_struct\_0 (k15\_euclid np\_2)) k1\_numbers k5\_pscomp\_1 \\ & (k9\_subset\_1 (u1\_struct\_0 (k15\_euclid np\_2)) X1 (k4\_topreal1 \\ & X0)))))) \end{aligned} \quad (14)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.((v1\_xxreal\_0 X0) \wedge (v1\_xxreal\_0 X1)) \Rightarrow ( \\ & (r1\_xxreal\_0 X0 X1) \vee (r1\_xxreal\_0 X1 X0)) \end{aligned} \quad (15)$$

Assume the following.

$$\forall X0.(v1\_xreal\_0 X0) \Rightarrow (v1\_xxreal\_0 X0) \quad (16)$$

Assume the following.

$$\forall X0.(v3\_membered X0) \Rightarrow (v2\_membered X0) \quad (17)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k1\_numbers) \Rightarrow (v1\_xreal\_0 X0) \quad (18)$$

Assume the following.

$$\begin{aligned} & \forall X0.(v2\_membered X0) \Rightarrow (\forall X1.(m1\_subset\_1 X1 X0) \Rightarrow \\ & (v1\_xxreal\_0 X1)) \end{aligned} \quad (19)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.(m1\_subset\_1 X0 (u1\_struct\_0 (k15\_euclid np\_2))) \Rightarrow \\ & (\forall X1.((v2\_compts\_1 X1 (k15\_euclid np\_2)) \wedge (m1\_subset\_1 \\ & X1 (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid np\_2)))))) \Rightarrow (\neg(X0 \in k1\_jordan2c \\ & np\_2 X1) \wedge (r1\_xxreal\_0 (k5\_seq\_4 (k7\_relset\_1 (u1\_struct\_0 ( \\ & k15\_euclid np\_2)) k1\_numbers k5\_pscomp\_1 (k9\_subset\_1 (u1\_struct\_0 \\ & (k15\_euclid np\_2)) X1 (k4\_topreal1 X0)))) (k4\_seq\_4 (k7\_relset\_1 \\ & (u1\_struct\_0 (k15\_euclid np\_2)) k1\_numbers k5\_pscomp\_1 (k9\_subset\_1 \\ & (u1\_struct\_0 (k15\_euclid np\_2)) X1 (k6\_topreal1 X0)))))) \end{aligned}$$