

# t17\_jordan11

(TMR5aEZruHfzfCn6yVJvaNYgzGy1Hpvyi9o)

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Let  $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_numbers : \iota$  be given. Let  $k5\_numbers : \iota$  be given. Let  $v1\_topreal2 : \iota \Rightarrow o$  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  $k15\_euclid : \iota \Rightarrow \iota$  be given. Let  $np\_2 : \iota$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k3\_topreal1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_jordan9 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_jordan2c : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_jordan2c : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v2\_connsp\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v2\_compts\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_sppol\_1 : \iota \Rightarrow o$  be given. Let  $v2\_sppol\_1 : \iota \Rightarrow o$  be given. Let  $v2\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $m2\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m1\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k4\_ordinal1 : \iota$  be given. Let  $v3\_ordinal1 : \iota \Rightarrow o$  be given. Let  $v3\_funct\_1 : \iota \Rightarrow o$  be given. Let  $v1\_finseq\_6 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_topreal1 : \iota \Rightarrow o$  be given. Let  $v2\_topreal1 : \iota \Rightarrow o$  be given. Let  $v1\_goboard5 : \iota \Rightarrow o$  be given. Let  $v2\_goboard5 : \iota \Rightarrow o$  be given. Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $v1\_sprect\_2 : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} \forall X0.((v1\_topreal2 X0) \wedge (m1\_subset\_1 X0 (k1\_zfmisc\_1 (u1\_struct\_0 \\ (k15\_euclid np\_2)))))) \Rightarrow (\forall X1.((v1\_topreal2 X1) \wedge (m1\_subset\_1 \\ X1 (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid np\_2)))))) \Rightarrow ((r1\_tarski \\ X0 (k1\_jordan2c np\_2 X1)) \Rightarrow (r1\_tarski X1 (k2\_jordan2c np\_2 X0)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.(m1\_subset\_1 X0 k5\_numbers) \Rightarrow (\forall X1.((v2\_connsp\_1 \\ X1 (k15\_euclid np\_2)) \wedge ((v2\_compts\_1 X1 (k15\_euclid np\_2)) \wedge \\ ((\neg v1\_sppol\_1 X1) \wedge ((\neg v2\_sppol\_1 X1) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 \\ (u1\_struct\_0 (k15\_euclid np\_2)))))))))) \Rightarrow (r1\_tarski X1 (k1\_jordan2c \\ np\_2 (k3\_topreal1 np\_2 (k1\_jordan9 X1 X0)))) \end{aligned} \quad (2)$$

Assume the following.

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

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0 X0)\wedge((\neg v1\_xboole\_0 X1)\wedge(m1\_subset\_1 X1 (k1\_zfmisc\_1 X0))))\Rightarrow(\forall X2.(m2\_subset\_1 X2 X0 X1)\Leftrightarrow(m1\_subset\_1 X2 X1)) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.(m2\_finseq\_1 X1 X0)\Leftrightarrow(m1\_finseq\_1 X1 X0) \quad (5)$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \quad (6)$$

Assume the following.

$$(\neg v1\_xboole\_0 k4\_ordinal1)\wedge(v3\_ordinal1 k4\_ordinal1) \quad (7)$$

Assume the following.

$$\forall X0.((\neg v1\_xboole\_0 X0)\wedge((\neg v3\_funct\_1 X0)\wedge((v1\_finseq\_6 X0 (u1\_struct\_0 (k15\_euclid np\_2))))\wedge((v1\_topreal1 X0)\wedge((v2\_topreal1 X0)\wedge((v1\_goboard5 X0)\wedge((v2\_goboard5 X0)\wedge(m1\_finseq\_1 X0 (u1\_struct\_0 (k15\_euclid np\_2))))))))))\Rightarrow(v1\_topreal2 (k3\_topreal1 np\_2 X0)) \quad (8)$$

Assume the following.

$$m1\_subset\_1 k5\_numbers (k1\_zfmisc\_1 k1\_numbers) \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.((v7\_ordinal1 X0)\wedge(m1\_finseq\_1 X1 (u1\_struct\_0 (k15\_euclid X0))))\Rightarrow(m1\_subset\_1 (k3\_topreal1 X0 X1) (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid X0)))) \quad (10)$$

Assume the following.

$$\forall X0.\forall X1.(((\neg v1\_xboole\_0 X0)\wedge((v2\_compts\_1 X0 (k15\_euclid np\_2))\wedge((\neg v1\_sppol\_1 X0)\wedge((\neg v2\_sppol\_1 X0)\wedge(m1\_subset\_1 X0 (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid np\_2))))))))\wedge(v7\_ordinal1 X1))\Rightarrow((\neg v1\_xboole\_0 (k1\_jordan9 X0 X1))\wedge((\neg v3\_funct\_1 (k1\_jordan9 X0 X1))\wedge((v1\_finseq\_6 (k1\_jordan9 X0 X1) (u1\_struct\_0 (k15\_euclid np\_2))))\wedge((v1\_topreal1 (k1\_jordan9 X0 X1))\wedge((v2\_topreal1 (k1\_jordan9 X0 X1))\wedge((v1\_goboard5 (k1\_jordan9 X0 X1))\wedge((v2\_goboard5 (k1\_jordan9 X0 X1))\wedge((v1\_sprect\_2 (k1\_jordan9 X0 X1))\wedge(m2\_finseq\_1 (k1\_jordan9 X0 X1) (u1\_struct\_0 (k15\_euclid np\_2)))))))))) \quad (11)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid np\_2)))) \Rightarrow ((v1\_topreal2 X0) \Rightarrow (v2\_connsp\_1 X0 (k15\_euclid np\_2))) \quad (12)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k4\_ordinal1) \Rightarrow (v7\_ordinal1 X0) \quad (13)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid np\_2)))) \Rightarrow ((v1\_xboole\_0 X0) \Rightarrow (v2\_sppol\_1 X0)) \quad (14)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid np\_2)))) \Rightarrow ((v1\_topreal2 X0) \Rightarrow ((v1\_topreal2 X0) \wedge ((\neg v1\_sppol\_1 X0) \wedge (\neg v2\_sppol\_1 X0)))) \quad (15)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid np\_2)))) \Rightarrow ((v1\_topreal2 X0) \Rightarrow ((\neg v1\_xboole\_0 X0) \wedge (v2\_compts\_1 X0 (k15\_euclid np\_2)))) \quad (16)$$

Assume the following.

$$\forall X0.(v1\_xboole\_0 X0) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 X0)) \Rightarrow (v1\_xboole\_0 X1)) \quad (17)$$

**Theorem 1**

$$\forall X0.(m2\_subset\_1 X0 k1\_numbers k5\_numbers) \Rightarrow (\forall X1. ((v1\_topreal2 X1) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid np\_2)))))) \Rightarrow (r1\_tarski (k3\_topreal1 np\_2 (k1\_jordan9 X1 X0)) (k2\_jordan2c np\_2 X1)))$$