

## t7\_jordan15

(TMXQyhJHv92bsacDNS3jQsKozJeJFnbvkjJ)

October 27, 2020

Let  $v3\_relat\_1 : \iota \Rightarrow o$  be given. Let  $v1\_matrix\_1 : \iota \Rightarrow o$  be given. Let  $v2\_goboard1 : \iota \Rightarrow o$  be given. Let  $v3\_goboard1 : \iota \Rightarrow o$  be given. Let  $v4\_goboard1 : \iota \Rightarrow o$  be given. Let  $v5\_goboard1 : \iota \Rightarrow o$  be given. Let  $m2\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k3\_finseq\_2 : \iota \Rightarrow \iota$  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  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k5\_numbers : \iota$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $np\_1 : \iota$  be given. Let  $k1\_matrix\_1 : \iota \Rightarrow \iota$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_rltopsp1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_matrix\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_jordan1a : \iota \Rightarrow \iota$  be given. Let  $k3\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $v1\_finseq\_1 : \iota \Rightarrow o$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m1\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v4\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v5\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_finset\_1 : \iota \Rightarrow o$  be given. Let  $v2\_finseq\_1 : \iota \Rightarrow o$  be given. Let  $k1\_numbers : \iota$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned}
& \forall X0. ((\neg v3\_relat\_1 X0) \wedge ((v1\_matrix\_1 X0) \wedge ((v2\_goboard1 \\
& X0) \wedge ((v3\_goboard1 X0) \wedge ((v4\_goboard1 X0) \wedge ((v5\_goboard1 X0) \wedge \\
& (m2\_finseq\_1 X0 (k3\_finseq\_2 (u1\_struct\_0 (k15\_euclid np\_2)))))))))) \Rightarrow \\
& (\forall X1. (m1\_subset\_1 X1 k5\_numbers) \Rightarrow (\forall X2. (m1\_subset\_1 \\
& X2 k5\_numbers) \Rightarrow (\forall X3. (m1\_subset\_1 X3 k5\_numbers) \Rightarrow (\forall X4. \\
& (m1\_subset\_1 X4 k5\_numbers) \Rightarrow (\forall X5. (m1\_subset\_1 X5 k5\_numbers) \Rightarrow \\
& (((r1\_xxreal\_0 np\_1 X1) \wedge ((r1\_xxreal\_0 X1 (k3\_finseq\_1 X0)) \wedge \\
& ((r1\_xxreal\_0 np\_1 X2) \wedge ((r1\_xxreal\_0 X2 X4) \wedge ((r1\_xxreal\_0 X4 \\
& X5) \wedge ((r1\_xxreal\_0 X5 X3) \wedge (r1\_xxreal\_0 X3 (k1\_matrix\_1 X0)))))))))) \Rightarrow \\
& (r1\_tarski (k1\_rltopsp1 (k15\_euclid np\_2) (k3\_matrix\_1 (u1\_struct\_0 \\
& (k15\_euclid np\_2)) X0 X1 X4) (k3\_matrix\_1 (u1\_struct\_0 (k15\_euclid \\
& np\_2)) X0 X1 X5)) (k1\_rltopsp1 (k15\_euclid np\_2) (k3\_matrix\_1 \\
& (u1\_struct\_0 (k15\_euclid np\_2)) X0 X1 X2) (k3\_matrix\_1 (u1\_struct\_0 \\
& (k15\_euclid np\_2)) X0 X1 X3))))))
\end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v3\_relat\_1 X0) \wedge ((v1\_matrix\_1 X0) \wedge ((v2\_goboard1 \\ X0) \wedge ((v3\_goboard1 X0) \wedge ((v4\_goboard1 X0) \wedge ((v5\_goboard1 X0) \wedge \\ (m2\_finseq\_1 X0 (k3\_finseq\_2 (u1\_struct\_0 (k15\_euclid np\_2)))))))))) \Rightarrow \\ (r1\_xxreal\_0 (k1\_jordan1a X0) (k3\_finseq\_1 X0)) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0.((v1\_relat\_1 X0) \wedge ((v1\_funct\_1 X0) \wedge (v1\_finseq\_1 X0))) \Rightarrow \\ (r1\_xxreal\_0 np\_1 (k1\_jordan1a X0)) \quad (3)$$

Assume the following.

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

Assume the following.

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

Assume the following.

$$\begin{aligned} \forall X0. (\neg v1\_xboole\_0 X0) \Rightarrow (\exists X1. (m1\_finseq\_1 X1 X0) \wedge \\ ((v1\_relat\_1 X1) \wedge ((v4\_relat\_1 X1 k5\_numbers) \wedge ((v5\_relat\_1 X1 \\ X0) \wedge ((v1\_funct\_1 X1) \wedge ((\neg v1\_xboole\_0 X1) \wedge ((v1\_finset\_1 X1) \wedge \\ ((v1\_finseq\_1 X1) \wedge (v2\_finseq\_1 X1)))))))))) \end{aligned} \quad (6)$$

Assume the following.

$$\neg v1\_xboole\_0 k1\_numbers \quad (7)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. (m2\_finseq\_1 X1 X0) \Rightarrow ((v1\_funct\_1 X1) \wedge \\ (v1\_finseq\_1 X1) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 k5\_numbers \\ X0)))) \end{aligned} \quad (8)$$

Assume the following.

$$\forall X0. \forall X1. (m1\_finseq\_1 X1 X0) \Rightarrow ((v1\_relat\_1 X1) \wedge \\ (v1\_funct\_1 X1) \wedge (v1\_finseq\_1 X1)) \quad (9)$$

Assume the following.

$$m1\_subset\_1 k5\_numbers (k1\_zfmisc\_1 k1\_numbers) \quad (10)$$

Assume the following.

$$\begin{aligned} \forall X0. ((v1\_relat\_1 X0) \wedge ((v1\_funct\_1 X0) \wedge (v1\_finseq\_1 X0))) \Rightarrow \\ (m2\_subset\_1 (k1\_jordan1a X0) k1\_numbers k5\_numbers) \end{aligned} \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.(v1\_xboole\_0 X0)\Rightarrow(\forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1)))\Rightarrow(v1\_xboole\_0 X2)) \quad (12)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.((\neg v3\_relat\_1 X0)\wedge((v1\_matrix\_1 X0)\wedge((v2\_goboard1 \\ & X0)\wedge((v3\_goboard1 X0)\wedge((v4\_goboard1 X0)\wedge((v5\_goboard1 X0)\wedge \\ & (m2\_finseq\_1 X0 (k3\_finseq\_2 (u1\_struct\_0 (k15\_euclid np\_2))))))))))\Rightarrow \\ & (\forall X1.(m1\_subset\_1 X1 k5\_numbers)\Rightarrow(\forall X2.(m1\_subset\_1 \\ & X2 k5\_numbers)\Rightarrow(\forall X3.(m1\_subset\_1 X3 k5\_numbers)\Rightarrow(\forall X4. \\ & (m1\_subset\_1 X4 k5\_numbers)\Rightarrow(((r1\_xxreal\_0 np\_1 X1)\wedge((r1\_xxreal\_0 \\ & X1 X3)\wedge((r1\_xxreal\_0 X3 X4)\wedge((r1\_xxreal\_0 X4 X2)\wedge(r1\_xxreal\_0 \\ & X2 (k1\_matrix\_1 X0))))))\Rightarrow(r1\_tarski (k1\_rltopsp1 (k15\_euclid \\ & np\_2) (k3\_matrix\_1 (u1\_struct\_0 (k15\_euclid np\_2)) X0 (k1\_jordan1a \\ & X0) X3) (k3\_matrix\_1 (u1\_struct\_0 (k15\_euclid np\_2)) X0 (k1\_jordan1a \\ & X0) X4) (k1\_rltopsp1 (k15\_euclid np\_2) (k3\_matrix\_1 (u1\_struct\_0 \\ & (k15\_euclid np\_2)) X0 (k1\_jordan1a X0) X1) (k3\_matrix\_1 (u1\_struct\_0 \\ & (k15\_euclid np\_2)) X0 (k1\_jordan1a X0) X2)))))))))) \end{aligned}$$