

## t24\_jordan9

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October 27, 2020

Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k5\_numbers : \iota$  be given. 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  $k4\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_matrix\_1 : \iota \Rightarrow \iota$  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  $k17\_euclid : \iota \Rightarrow \iota$  be given. Let  $k3\_matrix\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  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  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $v1\_xxreal\_0 : \iota \Rightarrow o$  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  $k4\_ordinal1 : \iota$  be given. Let  $v3\_ordinal1 : \iota \Rightarrow o$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_numbers : \iota$  be given. Let  $v1\_xreal\_0 : \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. \neg (X0 \in X1) \wedge ((m1\_subset\_1 X1 (k1\_zfmisc\_1 X2)) \wedge (v1\_xboole\_0 X2)) \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. (m1\_subset\_1 X0 k5\_numbers) \Rightarrow (\forall X1. (m1\_subset\_1 X1 k5\_numbers) \Rightarrow (\forall X2. (m1\_subset\_1 X2 k5\_numbers) \Rightarrow (\forall X3. \\ & ((v1\_matrix\_1 X3) \wedge (m2\_finseq\_1 X3 (k3\_finseq\_2 (u1\_struct\_0 (k15\_euclid np\_2)))))) \Rightarrow (\neg (v5\_goboard1 X3) \wedge ((r1\_xxreal\_0 np\_1 X0) \wedge ((r1\_xxreal\_0 X0 (k1\_matrix\_1 X3)) \wedge ((r1\_xxreal\_0 np\_1 X1) \wedge \\ & ((\neg r1\_xxreal\_0 X2 X1) \wedge ((r1\_xxreal\_0 X2 (k3\_finseq\_1 X3)) \wedge (r1\_xxreal\_0 (k17\_euclid (k3\_matrix\_1 (u1\_struct\_0 (k15\_euclid np\_2)) X3 X2 X0)) (k17\_euclid (k3\_matrix\_1 (u1\_struct\_0 (k15\_euclid np\_2)) X3 X1 X0)))))))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1\_relat\_1 X0) \wedge ((v1\_funct\_1 X0) \wedge ((v1\_finseq\_1 \\ & X0) \wedge (v1\_matrix\_1 X0)))) \Rightarrow (\forall X1.(v7\_ordinal1 X1) \Rightarrow (\forall X2. \\ & (v7\_ordinal1 X2) \Rightarrow ((k4\_tarSKI X1 X2 \in k2\_matrix\_1 X0) \Rightarrow ((r1\_xxreal\_0 \\ & np\_1 X1) \wedge ((r1\_xxreal\_0 X1 (k3\_finseq\_1 X0)) \wedge ((r1\_xxreal\_0 np\_1 \\ & X2) \wedge (r1\_xxreal\_0 X2 (k1\_matrix\_1 X0)))))))) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. (m1\_subset\_1 X0 X1) \Rightarrow ((v1\_xboole\_0 X1) \vee (X0 \in X1)) \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0. (m1\_subset\_1 X0 k5\_numbers) \Rightarrow (\forall X1. (m1\_subset\_1 \\ & X1 k5\_numbers) \Rightarrow (\forall X2. ((v1\_matrix\_1 X2) \wedge (m2\_finseq\_1 X2 \\ & (k3\_finseq\_2 (u1\_struct\_0 (k15\_euclid np\_2)))))) \Rightarrow (((v2\_goboard1 \\ & X2) \wedge ((r1\_xxreal\_0 np\_1 X0) \wedge ((r1\_xxreal\_0 X0 (k1\_matrix\_1 X2)) \wedge \\ & ((r1\_xxreal\_0 np\_1 X1) \wedge (r1\_xxreal\_0 X1 (k3\_finseq\_1 X2)))))) \Rightarrow \\ & (k17\_euclid (k3\_matrix\_1 (u1\_struct\_0 (k15\_euclid np\_2)) X2 \\ & X1 X0) = k17\_euclid (k3\_matrix\_1 (u1\_struct\_0 (k15\_euclid np\_2)) \\ & X2 X1 np\_1)))) \end{aligned} \quad (5)$$

Assume the following.

$$\forall X0. (v1\_xxreal\_0 X0) \Rightarrow (\forall X1. (v1\_xxreal\_0 X1) \Rightarrow ((r1\_xxreal\_0 X0 X1) \wedge (r1\_xxreal\_0 X1 X0)) \Rightarrow (X0 = X1)) \quad (6)$$

Assume the following.

$$\forall X0. \forall X1. ((v1\_xxreal\_0 X0) \wedge (v1\_xxreal\_0 X1)) \Rightarrow (r1\_xxreal\_0 X0 X0) \quad (7)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v1\_xboole\_0 X0) \wedge ((\neg v1\_xboole\_0 X1) \wedge \\ & (m1\_subset\_1 X1 (k1\_zfmisc\_1 X0)))) \Rightarrow (\forall X2. (m2\_subset\_1 \\ & X2 X0 X1) \Leftrightarrow (m1\_subset\_1 X2 X1)) \end{aligned} \quad (8)$$

Assume the following.

$$\forall X0. \forall X1. (m2\_finseq\_1 X1 X0) \Leftrightarrow (m1\_finseq\_1 X1 X0) \quad (9)$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \quad (10)$$

Assume the following.

$$(\neg v1\_xboole\_0 k4\_ordinal1) \wedge (v3\_ordinal1 k4\_ordinal1) \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.(m2\_finseq\_1 X1 X0)\Rightarrow((v1\_funct\_1 X1)\wedge((v1\_finseq\_1 X1)\wedge(m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 k5\_numbers X0)))))) \quad (12)$$

Assume the following.

$$\forall X0.\forall X1.(m1\_finseq\_1 X1 X0)\Rightarrow((v1\_relat\_1 X1)\wedge((v1\_funct\_1 X1)\wedge(v1\_finseq\_1 X1))) \quad (13)$$

Assume the following.

$$m1\_subset\_1 k5\_numbers (k1\_zfmisc\_1 k1\_numbers) \quad (14)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.(((v1\_matrix\_1 X1)\wedge(m1\_finseq\_1 X1 (k3\_finseq\_2 X0)))\wedge((v7\_ordinal1 X2)\wedge(v7\_ordinal1 X3)))\Rightarrow(m1\_subset\_1 (k3\_matrix\_1 X0 X1 X2 X3) X0) \quad (15)$$

Assume the following.

$$\forall X0.((v1\_relat\_1 X0)\wedge((v1\_funct\_1 X0)\wedge(v1\_finseq\_1 X0)))\Rightarrow(m2\_subset\_1 (k3\_finseq\_1 X0) k1\_numbers k5\_numbers) \quad (16)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 (u1\_struct\_0 (k15\_euclid np\_2)))\Rightarrow(m1\_subset\_1 (k17\_euclid X0) k1\_numbers) \quad (17)$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xxreal\_0 X0)\wedge(v1\_xxreal\_0 X1))\Rightarrow((r1\_xxreal\_0 X0 X1)\vee(r1\_xxreal\_0 X1 X0)) \quad (18)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k4\_ordinal1)\Rightarrow(v7\_ordinal1 X0) \quad (19)$$

Assume the following.

$$\forall X0.(v1\_xreal\_0 X0)\Rightarrow(v1\_xxreal\_0 X0) \quad (20)$$

Assume the following.

$$\forall X0.(v7\_ordinal1 X0)\Rightarrow(v1\_xreal\_0 X0) \quad (21)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k1\_numbers)\Rightarrow(v1\_xreal\_0 X0) \quad (22)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.(m1\_subset\_1 X0 k5\_numbers) \Rightarrow (\forall X1.(m1\_subset\_1 \\ & X1 k5\_numbers) \Rightarrow (\forall X2.(m1\_subset\_1 X2 k5\_numbers) \Rightarrow (\forall X3. \\ & ((\neg v3\_relat\_1 X3) \wedge ((v1\_matrix\_1 X3) \wedge ((v2\_goboard1 X3) \wedge ((v3\_goboard1 \\ & X3) \wedge ((v4\_goboard1 X3) \wedge ((v5\_goboard1 X3) \wedge (m2\_finseq\_1 X3 (k3\_finseq\_2 \\ & (u1\_struct\_0 (k15\_euclid np\_2)))))))))) \Rightarrow (((k4\_tarski X0 X1 \in \\ & k2\_matrix\_1 X3) \wedge ((r1\_xxreal\_0 np\_1 X2) \wedge (r1\_xxreal\_0 X2 (k1\_matrix\_1 \\ & X3)))) \Rightarrow (r1\_xxreal\_0 (k17\_euclid (k3\_matrix\_1 (u1\_struct\_0 ( \\ & k15\_euclid np\_2)) X3 X0 X1)) (k17\_euclid (k3\_matrix\_1 (u1\_struct\_0 \\ & (k15\_euclid np\_2)) X3 (k3\_finseq\_1 X3) X2)))))) \end{aligned}$$