

# l8\_jordan9 (TMMY- TaN3D4BNCQh9qrWvaueaRax7c6s1pET)

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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  $r1\_goboard1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $np\_1 : \iota$  be given. Let  $k3\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $k4\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_matrix\_1 : \iota \Rightarrow \iota$  be given. Let  $k7\_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_matrix\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  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  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $k1\_reset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  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  $k4\_ordinal1 : \iota$  be given. Let  $k4\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $k9\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $k13\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $v4\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v3\_ordinal1 : \iota \Rightarrow o$  be given. Let  $k1\_numbers : \iota$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_nat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k18\_complex1 : \iota \Rightarrow \iota$  be given. Let  $k6\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0.((v1\_relat\_1 X0) \wedge ((v1\_funct\_1 X0) \wedge (v1\_finseq\_1 X0))) \Rightarrow \\ & (\forall X1.(v7\_ordinal1 X1) \Rightarrow ((X1 \in k1\_reset\_1 k5\_numbers X0) \Leftrightarrow \\ & ((r1\_xxreal\_0 np\_1 X1) \wedge (r1\_xxreal\_0 X1 (k3\_finseq\_1 X0)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v1\_xboole\_0 X0) \wedge ((\neg v1\_xboole\_0 X1) \wedge \\ & (m1\_subset\_1 X1 (k1\_zfmisc\_1 X0)))) \Rightarrow (\forall X2.(m2\_subset\_1 \\ & X2 X0 X1) \Leftrightarrow (m1\_subset\_1 X2 X1)) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0. \forall X1.(m2\_finseq\_1 X1 X0) \Leftrightarrow (m1\_finseq\_1 X1 X0) \quad (3)$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \quad (4)$$

Assume the following.

$$\forall X0.((v1\_relat\_1 X0) \wedge ((v1\_funct\_1 X0) \wedge (v1\_finseq\_1 X0))) \Rightarrow (k4\_finseq\_1 X0 = k9\_xtuple\_0 X0) \quad (5)$$

Assume the following.

$$\forall X0.k3\_finseq\_2 X0 = k13\_finseq\_1 X0 \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.((v1\_relat\_1 X1) \wedge (v4\_relat\_1 X1 X0)) \Rightarrow (k1\_relset\_1 X0 X1 = k9\_xtuple\_0 X1) \quad (7)$$

Assume the following.

$$(\neg v1\_xboole\_0 k4\_ordinal1) \wedge (v3\_ordinal1 k4\_ordinal1) \quad (8)$$

Assume the following.

$$\neg v1\_xboole\_0 k1\_numbers \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.(m2\_finseq\_1 X1 X0) \Rightarrow ((v1\_funct\_1 X1) \wedge ((v1\_finseq\_1 X1) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 k5\_numbers X0)))))) \quad (10)$$

Assume the following.

$$\forall X0.\forall X1.(m1\_finseq\_1 X1 X0) \Rightarrow ((v1\_relat\_1 X1) \wedge ((v1\_funct\_1 X1) \wedge (v1\_finseq\_1 X1))) \quad (11)$$

Assume the following.

$$m1\_subset\_1 k5\_numbers (k1\_zfmisc\_1 k1\_numbers) \quad (12)$$

Assume the following.

$$\begin{aligned}
& \forall X0.\forall X1.(m2\_finseq\_1 X1 X0) \Rightarrow (\forall X2.((v1\_matrix\_1 \\
& X2) \wedge (m2\_finseq\_1 X2 (k3\_finseq\_2 X0))) \Rightarrow ((r1\_goboard1 X0 X1 X2) \Leftrightarrow \\
& ((\forall X3.(m2\_subset\_1 X3 k1\_numbers k5\_numbers) \Rightarrow (\neg(X3 \in k4\_finseq\_1 \\
& X1) \wedge (\forall X4.(m2\_subset\_1 X4 k1\_numbers k5\_numbers) \Rightarrow (\forall X5. \\
& (m2\_subset\_1 X5 k1\_numbers k5\_numbers) \Rightarrow (\neg(k4\_tarski X4 X5 \in k2\_matrix\_1 \\
& X2) \wedge (k7\_partfun1 X0 X1 X3 = k3\_matrix\_1 X0 X2 X4 X5)))))) \wedge (\forall X3. \\
& (m2\_subset\_1 X3 k1\_numbers k5\_numbers) \Rightarrow (((X3 \in k4\_finseq\_1 X1) \wedge \\
& (k2\_nat\_1 X3 np\_1 \in k4\_finseq\_1 X1)) \Rightarrow (\forall X4.(m2\_subset\_1 \\
& X4 k1\_numbers k5\_numbers) \Rightarrow (\forall X5.(m2\_subset\_1 X5 k1\_numbers \\
& k5\_numbers) \Rightarrow (\forall X6.(m2\_subset\_1 X6 k1\_numbers k5\_numbers) \Rightarrow \\
& (\forall X7.(m2\_subset\_1 X7 k1\_numbers k5\_numbers) \Rightarrow (((k4\_tarski \\
& X4 X5 \in k2\_matrix\_1 X2) \wedge ((k4\_tarski X6 X7 \in k2\_matrix\_1 X2) \wedge ((k7\_partfun1 \\
& X0 X1 X3 = k3\_matrix\_1 X0 X2 X4 X5) \wedge (k7\_partfun1 X0 X1 (k2\_nat\_1 X3 \\
& np\_1) = k3\_matrix\_1 X0 X2 X6 X7)))))) \Rightarrow (k2\_xcmplx\_0 (k18\_complex1 \\
& (k6\_xcmplx\_0 X4 X6)) (k18\_complex1 (k6\_xcmplx\_0 X5 X7)) = np\_1))))))))) \\
& \tag{13}
\end{aligned}$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k4\_ordinal1) \Rightarrow (v7\_ordinal1 X0) \tag{14}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((v1\_relat\_1 X0) \wedge ((v1\_funct\_1 X0) \wedge (v1\_finseq\_1 X0))) \Rightarrow \\
& ((v1\_relat\_1 X0) \wedge ((v4\_relat\_1 X0 k5\_numbers) \wedge ((v1\_funct\_1 X0) \wedge \\
& (v1\_finseq\_1 X0)))) \tag{15}
\end{aligned}$$

**Theorem 1**

$$\begin{aligned}
& \forall X0.(m1\_subset\_1 X0 k5\_numbers) \Rightarrow (\forall X1.((\neg v3\_relat\_1 \\
& X1) \wedge ((v1\_matrix\_1 X1) \wedge ((v2\_goboard1 X1) \wedge ((v3\_goboard1 X1) \wedge \\
& ((v4\_goboard1 X1) \wedge ((v5\_goboard1 X1) \wedge (m2\_finseq\_1 X1 (k3\_finseq\_2 \\
& (u1\_struct\_0 (k15\_euclid np\_2)))))))))) \Rightarrow (\forall X2.(m2\_finseq\_1 \\
& X2 (u1\_struct\_0 (k15\_euclid np\_2))) \Rightarrow (\neg(r1\_goboard1 (u1\_struct\_0 \\
& (k15\_euclid np\_2)) X2 X1) \wedge ((r1\_xxreal\_0 np\_1 X0) \wedge ((r1\_xxreal\_0 \\
& X0 (k3\_finseq\_1 X2)) \wedge (\forall X3.(m1\_subset\_1 X3 k5\_numbers) \Rightarrow \\
& (\forall X4.(m1\_subset\_1 X4 k5\_numbers) \Rightarrow (\neg(k4\_tarski X3 X4 \in k2\_matrix\_1 \\
& X1) \wedge (k7\_partfun1 (u1\_struct\_0 (k15\_euclid np\_2)) X2 X0 = k3\_matrix\_1 \\
& (u1\_struct\_0 (k15\_euclid np\_2)) X1 X3 X4))))))))))
\end{aligned}$$