

# t20\_jordan12 (TMN- nAJx3NpngGuEYiAM9MTfRvixuEk36bGQ)

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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  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k3\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $k1\_matrix\_1 : \iota \Rightarrow \iota$  be given. Let  $v1\_convex1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k3\_goboard5 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k9\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_goboard5 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_goboard5 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $m1\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k4\_ordinal1 : \iota$  be given. Let  $v6\_membered : \iota \Rightarrow o$  be given. Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0.((v1\_convex1 X0 (k15\_euclid np\_2)) \wedge (m1\_subset\_1 \\ & X0 (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid np\_2)))))) \Rightarrow (\forall X1. \\ & ((v1\_convex1 X1 (k15\_euclid np\_2)) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 \\ & (u1\_struct\_0 (k15\_euclid np\_2)))))) \Rightarrow (v1\_convex1 (k9\_subset\_1 \\ & (u1\_struct\_0 (k15\_euclid np\_2)) X0 X1) (k15\_euclid np\_2))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1\_subset\_1 X0 k5\_numbers) \Rightarrow (\forall X1.((\neg v3\_relat\_1 \\ & X1) \wedge ((v1\_matrix\_1 X1) \wedge ((v2\_goboard1 X1) \wedge ((v3\_goboard1 X1) \wedge \\ & ((v4\_goboard1 X1) \wedge ((v5\_goboard1 X1) \wedge (m2\_finseq\_1 X1 (k3\_finseq\_2 \\ & (u1\_struct\_0 (k15\_euclid np\_2)))))))))) \Rightarrow ((r1\_xxreal\_0 X0 ( \\ & k1\_matrix\_1 X1)) \Rightarrow (v1\_convex1 (k2\_goboard5 X1 X0) (k15\_euclid \\ & np\_2)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0.(m1\_subset\_1 X0 k5\_numbers) \Rightarrow (\forall X1.((\neg v3\_relat\_1 \\ X1) \wedge ((v1\_matrix\_1 X1) \wedge ((v2\_goboard1 X1) \wedge ((v3\_goboard1 X1) \wedge \\ ((v4\_goboard1 X1) \wedge ((v5\_goboard1 X1) \wedge (m2\_finseq\_1 X1 (k3\_finseq\_2 \\ (u1\_struct\_0 (k15\_euclid np\_2)))))))))) \Rightarrow ((r1\_xxreal\_0 X0 ( \\ k3\_finseq\_1 X1)) \Rightarrow (v1\_convex1 (k1\_goboard5 X1 X0) (k15\_euclid \\ np\_2)))))) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.(m2\_finseq\_1 X1 X0) \Leftrightarrow (m1\_finseq\_1 X1 X0) \quad (4)$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \quad (5)$$

Assume the following.

$$v6\_membered k4\_ordinal1 \quad (6)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.(((v1\_matrix\_1 X0) \wedge (m1\_finseq\_1 X0 (k3\_finseq\_2 \\ (u1\_struct\_0 (k15\_euclid np\_2)))))) \wedge (v7\_ordinal1 X1)) \Rightarrow (m1\_subset\_1 \\ (k2\_goboard5 X0 X1) (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid np\_2)))) \end{aligned} \quad (7)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.(((v1\_matrix\_1 X0) \wedge (m1\_finseq\_1 X0 (k3\_finseq\_2 \\ (u1\_struct\_0 (k15\_euclid np\_2)))))) \wedge (v7\_ordinal1 X1)) \Rightarrow (m1\_subset\_1 \\ (k1\_goboard5 X0 X1) (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid np\_2)))) \end{aligned} \quad (8)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1\_matrix\_1 X0) \wedge (m2\_finseq\_1 X0 (k3\_finseq\_2 (u1\_struct\_0 \\ (k15\_euclid np\_2)))))) \Rightarrow (\forall X1.(v7\_ordinal1 X1) \Rightarrow (\forall X2. \\ (v7\_ordinal1 X2) \Rightarrow (k3\_goboard5 X0 X1 X2 = k9\_subset\_1 (u1\_struct\_0 \\ (k15\_euclid np\_2)) (k1\_goboard5 X0 X1) (k2\_goboard5 X0 X2)))) \end{aligned} \quad (9)$$

Assume the following.

$$\forall X0.(v6\_membered X0) \Rightarrow (\forall X1.(m1\_subset\_1 X1 X0) \Rightarrow (v7\_ordinal1 X1)) \quad (10)$$

### Theorem 1

$$\begin{aligned} \forall X0.(m1\_subset\_1 X0 k5\_numbers) \Rightarrow (\forall X1.(m1\_subset\_1 \\ X1 k5\_numbers) \Rightarrow (\forall X2.((\neg v3\_relat\_1 X2) \wedge ((v1\_matrix\_1 \\ X2) \wedge ((v2\_goboard1 X2) \wedge ((v3\_goboard1 X2) \wedge ((v4\_goboard1 X2) \wedge \\ ((v5\_goboard1 X2) \wedge (m2\_finseq\_1 X2 (k3\_finseq\_2 (u1\_struct\_0 \\ (k15\_euclid np\_2)))))))))) \Rightarrow (((r1\_xxreal\_0 X0 (k3\_finseq\_1 \\ X2)) \wedge (r1\_xxreal\_0 X1 (k1\_matrix\_1 X2))) \Rightarrow (v1\_convex1 (k3\_goboard5 \\ X2 X0 X1) (k15\_euclid np\_2)))))) \end{aligned}$$