

t56\_jordan1j  
(TMZ45kAb6nfMqzkXEebQJmfewGZ238Uxgbk)

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Let  $m2\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$  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  $v4\_topreal1 : \iota \Rightarrow o$  be given. Let  $k10\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $np\_1 : \iota$  be given. Let  $k2\_nat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_jordan3 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_finseq\_4 : \iota \Rightarrow \iota \Rightarrow \iota$  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  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k3\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $v1\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $v2\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_numbers : \iota$  be given. Let  $k5\_numbers : \iota$  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  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0.((v1\_relat\_1 X0) \wedge ((v1\_funct\_1 X0) \wedge (v1\_finseq\_1 X0))) \Rightarrow \\ & (\forall X1.(X1 \in k10\_xtuple\_0 X0) \Rightarrow ((r1\_xxreal\_0 np\_1 (k4\_finseq\_4 \\ & X0 X1)) \wedge (r1\_xxreal\_0 (k4\_finseq\_4 X0 X1) (k3\_finseq\_1 X0)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.(v1\_xxreal\_0 X0) \Rightarrow (\forall X1.(v1\_xxreal\_0 X1) \Rightarrow (( \\ & (r1\_xxreal\_0 X0 X1) \wedge (r1\_xxreal\_0 X1 X0)) \Rightarrow (X0 = X1))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1\_relat\_1 X0) \wedge ((v1\_funct\_1 X0) \wedge (v1\_finseq\_1 X0))) \Rightarrow \\ & (\forall X1.(X1 \in k10\_xtuple\_0 X0) \Rightarrow (k1\_funct\_1 X0 (k4\_finseq\_4 \\ & X0 X1) = X1)) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m2\_finseq\_1 X0 (u1\_struct\_0 (k15\_euclid np\_2))) \Rightarrow \\ & (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 (k15\_euclid np\_2))) \Rightarrow \\ & (\forall X2.(v7\_ordinal1 X2) \Rightarrow (((v4\_topreal1 X0) \wedge ((r1\_xxreal\_0 \\ & X2 (k3\_finseq\_1 X0)) \wedge (X1 = k1\_funct\_1 X0 X2))) \Rightarrow ((r1\_xxreal\_0 X2 \\ & np\_1) \vee (k2\_nat\_1 (k1\_jordan3 X0 X1) np\_1 = X2)))))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & ((v2\_xxreal\_0 \ np\_1) \wedge (m2\_subset\_1 \ np\_1 \ k1\_numbers \ k5\_numbers)) \wedge \\ & ((m1\_subset\_1 \ np\_1 \ k5\_numbers) \wedge (m1\_subset\_1 \ np\_1 \ k1\_numbers)) \end{aligned} \quad (5)$$

Assume the following.

$$\forall X0. \forall X1. (m2\_finseq\_1 \ X1 \ X0) \Leftrightarrow (m1\_finseq\_1 \ X1 \ X0) \quad (6)$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \quad (7)$$

Assume the following.

$$v6\_membered \ k4\_ordinal1 \quad (8)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (m2\_finseq\_1 \ X1 \ X0) \Rightarrow ((v1\_funct\_1 \ X1) \wedge \\ & (v1\_finseq\_1 \ X1) \wedge (m1\_subset\_1 \ X1 \ (k1\_zfmisc\_1 \ (k2\_zfmisc\_1 \ k5\_numbers \\ & \ X0)))) \end{aligned} \quad (9)$$

Assume the following.

$$\forall X0. \forall X1. (m1\_finseq\_1 \ X1 \ X0) \Rightarrow ((v1\_relat\_1 \ X1) \wedge (v1\_funct\_1 \ X1) \wedge (v1\_finseq\_1 \ X1)) \quad (10)$$

Assume the following.

$$\forall X0. \forall X1. ((v1\_relat\_1 \ X0) \wedge ((v1\_funct\_1 \ X0) \wedge (v1\_finseq\_1 \ X0))) \Rightarrow (m1\_subset\_1 \ (k4\_finseq\_4 \ X0 \ X1) \ k5\_numbers) \quad (11)$$

Assume the following.

$$\forall X0. (v7\_ordinal1 \ X0) \Rightarrow (v1\_xxreal\_0 \ X0) \quad (12)$$

Assume the following.

$$\forall X0. (v6\_membered \ X0) \Rightarrow (\forall X1. (m1\_subset\_1 \ X1 \ X0) \Rightarrow (v7\_ordinal1 \ X1)) \quad (13)$$

**Theorem 1**

$$\begin{aligned} & \forall X0. (m2\_finseq\_1 \ X0 \ (u1\_struct\_0 \ (k15\_euclid \ np\_2))) \Rightarrow \\ & (\forall X1. (m1\_subset\_1 \ X1 \ (u1\_struct\_0 \ (k15\_euclid \ np\_2)))) \Rightarrow \\ & (((v4\_topreal1 \ X0) \wedge (X1 \in \ k10\_xtuple\_0 \ X0)) \Rightarrow ((X1 = k1\_funct\_1 \ X0 \\ & \ np\_1) \vee (k2\_nat\_1 \ (k1\_jordan3 \ X0 \ X1) \ np\_1 = k4\_finseq\_4 \ X0 \ X1))) \end{aligned}$$