

## t5\_jordan4

(TMP4k9NPZve582Xu55oSfzBhKQDpcWdTNqJ)

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Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $m2\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_finseq\_6 : \iota \Rightarrow \iota \Rightarrow o$  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  $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k7\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k9\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $k7\_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_nat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0. (\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1. \forall X2. (m2\_finseq\_1 \\ & X2 X0) \Rightarrow ((r1\_xxreal\_0 np\_1 (k3\_finseq\_1 X2)) \Rightarrow ((k1\_funct\_1 (k7\_finseq\_1 \\ & X2 (k9\_finseq\_1 X1)) np\_1 = k1\_funct\_1 X2 np\_1) \wedge ((k1\_funct\_1 \\ & (k7\_finseq\_1 X2 (k9\_finseq\_1 X1)) np\_1 = k7\_partfun1 X0 X2 np\_1) \wedge \\ & ((k1\_funct\_1 (k7\_finseq\_1 (k9\_finseq\_1 X1) X2) (k2\_nat\_1 (k3\_finseq\_1 \\ & X2) np\_1) = k1\_funct\_1 X2 (k3\_finseq\_1 X2)) \wedge (k1\_funct\_1 (k7\_finseq\_1 \\ & (k9\_finseq\_1 X1) X2) (k2\_nat\_1 (k3\_finseq\_1 X2) np\_1) = k7\_partfun1 \\ & X0 X2 (k3\_finseq\_1 X2)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. (\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1. (m2\_finseq\_1 X1 X0) \Rightarrow \\ & ((v1\_finseq\_6 X1 X0) \Leftrightarrow (k7\_partfun1 X0 X1 np\_1 = k7\_partfun1 X0 X1 \\ & (k3\_finseq\_1 X1)))) \end{aligned} \tag{2}$$

### Theorem 1

$$\begin{aligned} & \forall X0. (\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1. (m2\_finseq\_1 X1 X0) \Rightarrow \\ & (((v1\_finseq\_6 X1 X0) \wedge (r1\_xxreal\_0 np\_1 (k3\_finseq\_1 X1))) \Rightarrow \\ & (k1\_funct\_1 X1 np\_1 = k1\_funct\_1 X1 (k3\_finseq\_1 X1)))) \end{aligned}$$