

t24\_jordan23

(TMdmTF7JyrjKMv15BsNCBKHxxMv4MkJA9bU)

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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  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k4\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $k3\_graph\_2 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k3\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $k1\_relset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k5\_numbers : \iota$  be given. Let  $k9\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $v4\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} \forall X0.((\neg v1\_xboole\_0 X0) \wedge ((v1\_relat\_1 X0) \wedge ((v1\_funct\_1 \\ X0) \wedge (v1\_finseq\_1 X0)))) \Rightarrow (\forall X1.((v1\_relat\_1 X1) \wedge ((v1\_funct\_1 \\ X1) \wedge (v1\_finseq\_1 X1)))) \Rightarrow (r1\_xxreal\_0 (k3\_finseq\_1 X1) (k3\_finseq\_1 \\ (k3\_graph\_2 X0 X1)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1\_relat\_1 X0) \wedge ((v1\_funct\_1 X0) \wedge (v1\_finseq\_1 X0))) \Rightarrow \\ (\forall X1.((v1\_relat\_1 X1) \wedge ((v1\_funct\_1 X1) \wedge (v1\_finseq\_1 \\ X1)))) \Rightarrow ((r1\_xxreal\_0 (k3\_finseq\_1 X0) (k3\_finseq\_1 X1)) \Leftrightarrow (r1\_tarski \\ (k1\_relset\_1 k5\_numbers X0) (k1\_relset\_1 k5\_numbers X1)))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0.((v1\_relat\_1 X0) \wedge ((v1\_funct\_1 X0) \wedge (v1\_finseq\_1 X0))) \Rightarrow (k4\_finseq\_1 X0 = k9\_xtuple\_0 X0) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1.((v1\_relat\_1 X1) \wedge (v4\_relat\_1 X1 X0)) \Rightarrow (k1\_relset\_1 X0 X1 = k9\_xtuple\_0 X1) \quad (4)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1.(((v1\_relat\_1 X0) \wedge ((v1\_funct\_1 X0) \wedge (v1\_finseq\_1 \\ X0))) \wedge ((v1\_relat\_1 X1) \wedge ((v1\_funct\_1 X1) \wedge (v1\_finseq\_1 X1)))) \Rightarrow \\ ((v1\_relat\_1 (k3\_graph\_2 X0 X1)) \wedge ((v1\_funct\_1 (k3\_graph\_2 X0 \\ X1)) \wedge (v1\_finseq\_1 (k3\_graph\_2 X0 X1)))) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1\_relat\_1 X0) \wedge ((v1\_funct\_1 X0) \wedge (v1\_finseq\_1 X0))) \Rightarrow \\ & ((v1\_relat\_1 X0) \wedge ((v4\_relat\_1 X0 \ k5\_numbers) \wedge ((v1\_funct\_1 X0) \wedge \\ & (v1\_finseq\_1 X0)))) \end{aligned} \quad (6)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.((\neg v1\_xboole\_0 X0) \wedge ((v1\_relat\_1 X0) \wedge ((v1\_funct\_1 \\ & X0) \wedge (v1\_finseq\_1 X0)))) \Rightarrow (\forall X1.((v1\_relat\_1 X1) \wedge ((v1\_funct\_1 \\ & X1) \wedge (v1\_finseq\_1 X1))) \Rightarrow (r1\_tarski (k4\_finseq\_1 X1) (k4\_finseq\_1 \\ & (k3\_graph\_2 X0 X1)))) \end{aligned}$$