

t74\_finseq\_3  
(TMS9L2DJuNcNyZR6hi8JzUxAEDJADS8ZcCQ)

October 27, 2020

Let  $k1\_finseq\_3 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_xboole\_0 : \iota$  be given. 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  $k10\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $m1\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v4\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k5\_numbers : \iota$  be given. Let  $v5\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_finset\_1 : \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0. \neg(X0 \neq k1\_xboole\_0) \wedge (\forall X1. \neg X1 \in X0) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. \neg(X0 \in X1) \wedge (v1\_xboole\_0 X1) \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((v1\_relat\_1 X0) \wedge ((v1\_funct\_1 X0) \wedge (v1\_finseq\_1 X0))) \Rightarrow \\ & (\forall X1. (k1\_finseq\_3 X0 X1 = k1\_xboole\_0) \Leftrightarrow (r1\_tarski (k10\_xtuple\_0 X0) X1)) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0. r1\_tarski k1\_xboole\_0 X0 \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0. \exists X1. (m1\_finseq\_1 X1 X0) \wedge ((v1\_relat\_1 X1) \wedge \\ & (v4\_relat\_1 X1 k5\_numbers) \wedge ((v5\_relat\_1 X1 X0) \wedge ((v1\_funct\_1 X1) \wedge ((v1\_xboole\_0 X1) \wedge ((v1\_finset\_1 X1) \wedge (v1\_finseq\_1 X1)))))) \end{aligned} \quad (5)$$

Assume the following.

$$\forall X0. (v1\_xboole\_0 X0) \Rightarrow (v1\_xboole\_0 (k10\_xtuple\_0 X0)) \quad (6)$$

**Theorem 1**  $\forall X0. k1\_finseq\_3 k1\_xboole\_0 X0 = k1\_xboole\_0.$