

## t22\_hallmar1

(TMJZv2tXy441k77GZ9ngjJV7MzaVaHLwdXa)

October 27, 2020

Let  $v1\_finset\_1 : \iota \Rightarrow o$  be given. Let  $m2\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $m2\_hallmar1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m1\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k4\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k5\_numbers : \iota$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0. \forall X1. (m2\_finseq\_1 X1 X0) \Leftrightarrow (m1\_finseq\_1 X1 X0) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (m1\_finseq\_1 X1 (k1\_zfmisc\_1 X0)) \Rightarrow (\forall X2. (m2\_hallmar1 X2 X0 X1) \Rightarrow (m2\_finseq\_1 X2 (k1\_zfmisc\_1 X0))) \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (m2\_finseq\_1 X1 (k1\_zfmisc\_1 X0)) \Rightarrow (\forall X2. \\ & (m2\_finseq\_1 X2 (k1\_zfmisc\_1 X0)) \Rightarrow ((m2\_hallmar1 X2 X0 X1) \Leftrightarrow ((k4\_finseq\_1 \\ & X2 = k4\_finseq\_1 X1) \wedge (\forall X3. (m1\_subset\_1 X3 k5\_numbers) \Rightarrow \\ & ((X3 \in k4\_finseq\_1 X1) \Rightarrow (r1\_tarski (k1\_funct\_1 X2 X3) (k1\_funct\_1 \\ & X1 X3))))))) \quad (3) \end{aligned}$$

Assume the following.

$$\forall X0. \forall X1. (r1\_tarski X0 X1) \Leftrightarrow (\forall X2. (X2 \in X0) \Rightarrow (X2 \in X1)) \quad (4)$$

### Theorem 1

$$\begin{aligned} & \forall X0. (v1\_finset\_1 X0) \Rightarrow (\forall X1. (m2\_finseq\_1 X1 (k1\_zfmisc\_1 \\ & X0)) \Rightarrow (\forall X2. (m2\_hallmar1 X2 X0 X1) \Rightarrow (\forall X3. (m2\_hallmar1 \\ & X3 X0 X2) \Rightarrow (m2\_hallmar1 X3 X0 X1)))) \end{aligned}$$