

# t112\_finseq\_2 (TMYhioM- SrhZigEwo6THGiHKiCWgQZXRN7Ru)

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Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m2\_finseq\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_finseq\_2 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_finseq\_2 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $m2\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k3\_finseq\_1 : \iota \Rightarrow \iota$  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  $k1\_card\_1 : \iota \Rightarrow \iota$  be given. Let  $v3\_card\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0. \forall X1. (m2\_finseq\_1 X1 X0) \Rightarrow (m2\_finseq\_2 X1 X0 (k4\_finseq\_2 (k3\_finseq\_1 X1) X0)) \quad (1)$$

Assume the following.

$$\forall X0. (v7\_ordinal1 X0) \Rightarrow (\forall X1. (\neg v1\_xboole\_0 X1) \Rightarrow (\forall X2. (m1\_subset\_1 X2 X1) \Rightarrow (m2\_finseq\_1 (k2\_finseq\_2 X0 X2) X1))) \quad (2)$$

Assume the following.

$$\forall X0. ((v1\_relat\_1 X0) \wedge ((v1\_funct\_1 X0) \wedge (v1\_finseq\_1 X0))) \Rightarrow (k3\_finseq\_1 X0 = k1\_card\_1 X0) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. (v7\_ordinal1 X0) \Rightarrow ((v1\_relat\_1 (k2\_finseq\_2 X0 X1)) \wedge ((v1\_funct\_1 (k2\_finseq\_2 X0 X1)) \wedge ((v3\_card\_1 (k2\_finseq\_2 X0 X1) X0) \wedge (v1\_finseq\_1 (k2\_finseq\_2 X0 X1)))))) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. (v3\_card\_1 X1 X0) \Leftrightarrow (k1\_card\_1 X1 = X0) \quad (5)$$

## Theorem 1

$$\forall X0. (v7\_ordinal1 X0) \Rightarrow (\forall X1. (\neg v1\_xboole\_0 X1) \Rightarrow (\forall X2. (m1\_subset\_1 X2 X1) \Rightarrow (m2\_finseq\_2 (k2\_finseq\_2 X0 X2) X1 (k4\_finseq\_2 X0 X1))))$$