

t2\_finseq\_3  
(TMPiG6xFGGrb7n8mYwV8RqcTaskgBfAJWo96)

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Let  $k2\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $np\_4 : \iota$  be given. Let  $k2\_enumset1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $np\_1 : \iota$  be given. Let  $np\_2 : \iota$  be given. Let  $np\_3 : \iota$  be given. Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $k2\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_tarski : \iota \Rightarrow \iota$  be given. Let  $k1\_nat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_enumset1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v2\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_numbers : \iota$  be given. Let  $k5\_numbers : \iota$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_ordinal1 : \iota$  be given. Assume the following.

$$\forall X0.(v7\_ordinal1 X0) \Rightarrow (k2\_xboole\_0 (k2\_finseq\_1 X0) (k1\_tarski (k1\_nat\_1 X0 np\_1))) = k2\_finseq\_1 (k1\_nat\_1 X0 np\_1) \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.k2\_enumset1 X0 X1 X2 X3 = k2\_xboole\_0 (k1\_enumset1 X0 X1 X2) (k1\_tarski X3) \quad (2)$$

Assume the following.

$$k2\_finseq\_1 np\_3 = k1\_enumset1 np\_1 np\_2 np\_3 \quad (3)$$

Assume the following.

$$((v2\_xxreal\_0 np\_3) \wedge (m2\_subset\_1 np\_3 k1\_numbers k5\_numbers)) \wedge ((m1\_subset\_1 np\_3 k5\_numbers) \wedge (m1\_subset\_1 np\_3 k1\_numbers)) \quad (4)$$

Assume the following.

$$((v2\_xxreal\_0 np\_1) \wedge (m2\_subset\_1 np\_1 k1\_numbers k5\_numbers)) \wedge ((m1\_subset\_1 np\_1 k5\_numbers) \wedge (m1\_subset\_1 np\_1 k1\_numbers)) \quad (5)$$

Assume the following.

$$k2\_xcmplx\_0 np\_3 np\_1 = np\_4 \quad (6)$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \tag{7}$$

Assume the following.

$$\forall X0.\forall X1.((v7\_ordinal1 X0)\wedge(m1\_subset\_1 X1 k5\_numbers))\Rightarrow (k1\_nat\_1 X0 X1 = k2\_xcmplx\_0 X0 X1) \tag{8}$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k4\_ordinal1)\Rightarrow(v7\_ordinal1 X0) \tag{9}$$

**Theorem 1**  $k2\_finseq\_1\ np\_4 = k2\_enumset1\ np\_1\ np\_2\ np\_3\ np\_4.$