

t138\_finseq\_2

(TMEm4H4AK2sxVkdghzEHmYGhBPuNA2MoXxd)

October 27, 2020

Let  $k10\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_finseq\_2 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $np\_2 : \iota$  be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. \forall X3. (k10\_finseq\_1 X0 X1 = k10\_finseq\_1 X2 X3) \Rightarrow ((X0 = X2) \wedge (X1 = X3)) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (X1 \in k4\_finseq\_2 np\_2 X0) \Leftrightarrow (\exists X2. \exists X3. (X2 \in X0) \wedge ((X3 \in X0) \wedge (X1 = k10\_finseq\_1 X2 X3))) \quad (2)$$

**Theorem 1**

$$\forall X0. \forall X1. \forall X2. (k10\_finseq\_1 X1 X2 \in k4\_finseq\_2 np\_2 X0) \Rightarrow ((X1 \in X0) \wedge (X2 \in X0))$$