

# l171\_seq\_4 (TMUsug- fRNYjGHyFm6KkvwVpQgqGydq1fkAe)

October 27, 2020

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  $m2\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k5\_card\_1 : \iota \Rightarrow \iota$  be given. Let  $k1\_rsum\_1 : \iota \Rightarrow \iota$  be given. Let  $k3\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $v5\_valued\_0 : \iota \Rightarrow o$  be given. Let  $k6\_numbers : \iota$  be given. Let  $k2\_nat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $np\_1 : \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0 : \iota \Rightarrow o. ((X0 \ k6\_numbers) \wedge (\forall X1. (m2\_subset\_1 \\ & X1 \ k1\_numbers \ k5\_numbers) \Rightarrow ((X0 \ X1) \Rightarrow (X0 \ (k2\_nat\_1 \ X1 \ np\_1)))))) \Rightarrow \\ & (\forall X1. (m2\_subset\_1 \ X1 \ k1\_numbers \ k5\_numbers) \Rightarrow (X0 \ X1)) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. (m2\_subset\_1 \ X0 \ k1\_numbers \ k5\_numbers) \Rightarrow ((\forall X1. \\ & (m2\_finseq\_1 \ X1 \ k1\_numbers) \Rightarrow (\neg(k5\_card\_1 \ (k1\_rsum\_1 \ X1) = X0) \wedge \\ & (\forall X2. (m2\_finseq\_1 \ X2 \ k1\_numbers) \Rightarrow (\neg(k1\_rsum\_1 \ X2 = k1\_rsum\_1 \\ & X1) \wedge ((k3\_finseq\_1 \ X2 = k5\_card\_1 \ (k1\_rsum\_1 \ X1)) \wedge (v5\_valued\_0 \\ & X2)))))) \Rightarrow (\forall X1. (m2\_finseq\_1 \ X1 \ k1\_numbers) \Rightarrow (\neg(k5\_card\_1 \\ & (k1\_rsum\_1 \ X1) = k2\_nat\_1 \ X0 \ np\_1) \wedge (\forall X2. (m2\_finseq\_1 \\ & X2 \ k1\_numbers) \Rightarrow (\neg(k1\_rsum\_1 \ X2 = k1\_rsum\_1 \ X1) \wedge ((k3\_finseq\_1 \\ & X2 = k5\_card\_1 \ (k1\_rsum\_1 \ X1)) \wedge (v5\_valued\_0 \ X2))))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. (m2\_finseq\_1 \ X0 \ k1\_numbers) \Rightarrow (\neg(k5\_card\_1 \ (k1\_rsum\_1 \\ & X0) = k6\_numbers) \wedge (\forall X1. (m2\_finseq\_1 \ X1 \ k1\_numbers) \Rightarrow (\neg \\ & (k1\_rsum\_1 \ X1 = k1\_rsum\_1 \ X0) \wedge ((k3\_finseq\_1 \ X1 = k5\_card\_1 \ (k1\_rsum\_1 \\ & X0)) \wedge (v5\_valued\_0 \ X1)))))) \end{aligned} \quad (3)$$

## Theorem 1

$$\begin{aligned} & \forall X0. (m2\_subset\_1 \ X0 \ k1\_numbers \ k5\_numbers) \Rightarrow (\forall X1. \\ & (m2\_finseq\_1 \ X1 \ k1\_numbers) \Rightarrow (\neg(k5\_card\_1 \ (k1\_rsum\_1 \ X1) = X0) \wedge \\ & (\forall X2. (m2\_finseq\_1 \ X2 \ k1\_numbers) \Rightarrow (\neg(k1\_rsum\_1 \ X2 = k1\_rsum\_1 \\ & X1) \wedge ((k3\_finseq\_1 \ X2 = k5\_card\_1 \ (k1\_rsum\_1 \ X1)) \wedge (v5\_valued\_0 \\ & X2)))))) \end{aligned}$$