

t10\_binari\_3  
(TMMA6KegxyYgjivQ83jwdV4fs3g4PBXasVa)

October 27, 2020

Let  $k1\_binari\_2 : \iota \Rightarrow \iota$  be given. Let  $np\_1 : \iota$  be given. Let  $k10\_binarith : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_margrel1 : \iota$  be given. Let  $k8\_margrel1 : \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $v3\_card\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m2\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k12\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $k2\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $k7\_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_numbers : \iota$  be given. Let  $k2\_xboolean : \iota$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $k5\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $v1\_xboolean : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0.(\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1.((v3\_card\_1 X1 np\_1) \wedge \\ & (m2\_finseq\_1 X1 X0)) \Rightarrow (\exists X2.(m1\_subset\_1 X2 X0) \wedge (X1 = k12\_finseq\_1 \\ & \quad X0 X2))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.(v7\_ordinal1 X0) \Rightarrow (\forall X1.(v7\_ordinal1 X1) \Rightarrow (( \\ & (X1 \in k2\_finseq\_1 X0) \wedge (X1 = np\_1)) \Rightarrow (k7\_partfun1 k6\_margrel1 ( \\ & \quad k1\_binari\_2 X0) X1 = k8\_margrel1))) \end{aligned} \tag{2}$$

Assume the following.

$$\forall X0.(v7\_ordinal1 X0) \Rightarrow ((X0 = k6\_numbers) \vee (X0 \in k2\_finseq\_1 X0)) \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0.(\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1.(m1\_subset\_1 X1 X0) \Rightarrow \\ & (k7\_partfun1 X0 (k12\_finseq\_1 X0 X1) np\_1 = X1)) \end{aligned} \tag{4}$$

Assume the following.

$$\neg v1\_xboole\_0 np\_1 \tag{5}$$

Assume the following.

$$k8\_margrel1 = k2\_xboolean \tag{6}$$

Assume the following.

$$k6\_numbers = k1\_xboole\_0 \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0 X0)\wedge(m1\_subset\_1 X1 X0))\Rightarrow (k12\_finseq\_1 X0 X1 = k5\_finseq\_1 X1) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0 X0)\wedge(m1\_subset\_1 X1 X0))\Rightarrow (k10\_binarith X0 X1 = k5\_finseq\_1 X1) \quad (9)$$

Assume the following.

$$v1\_xboolean k2\_xboolean \quad (10)$$

Assume the following.

$$\neg v1\_xboole\_0 k6\_margrel1 \quad (11)$$

Assume the following.

$$v1\_xboole\_0 k1\_xboole\_0 \quad (12)$$

Assume the following.

$$m1\_subset\_1 k8\_margrel1 k6\_margrel1 \quad (13)$$

Assume the following.

$$\forall X0.(v7\_ordinal1 X0)\Rightarrow((v3\_card\_1 (k1\_binari\_2 X0) X0)\wedge (m2\_finseq\_1 (k1\_binari\_2 X0) k6\_margrel1)) \quad (14)$$

Assume the following.

$$k2\_xboolean = np\_1 \quad (15)$$

Assume the following.

$$\forall X0.(v1\_xboolean X0)\Rightarrow(v7\_ordinal1 X0) \quad (16)$$

**Theorem 1**  $k1\_binari\_2 np\_1 = k10\_binarith k6\_margrel1 k8\_margrel1$ .