

## t13\_cc0sp1

(TMUb5Taqqsh765FcVuP1kN2b8iGWnGBxdeW)

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Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_numbers : \iota$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_comseq\_2 : \iota \Rightarrow o$  be given. Let  $k2\_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_seq\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_cc0sp1 : \iota \Rightarrow \iota$  be given. Let  $k4\_seq\_4 : \iota \Rightarrow \iota$  be given. Let  $k5\_cc0sp1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_cc0sp1 : \iota \Rightarrow \iota$  be given. Let  $k1\_numbers : \iota$  be given. Let  $k4\_cc0sp1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} \forall X0. (\neg v1\_xboole\_0 X0) \Rightarrow & ((v1\_funct\_1 (k6\_cc0sp1 X0)) \wedge \\ & (v1\_funct\_2 (k6\_cc0sp1 X0) (k2\_cc0sp1 X0) k1\_numbers) \wedge (m1\_subset\_1 \\ & (k6\_cc0sp1 X0) (k1\_zfmisc\_1 (k2\_zfmisc\_1 (k2\_cc0sp1 X0) k1\_numbers)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0. (\neg v1\_xboole\_0 X0) \Rightarrow & (\forall X1. ((v1\_funct\_1 X1) \wedge \\ & (v1\_funct\_2 X1 (k2\_cc0sp1 X0) k1\_numbers) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 \\ & (k2\_zfmisc\_1 (k2\_cc0sp1 X0) k1\_numbers)))) \Rightarrow ((X1 = k6\_cc0sp1 \\ & X0) \Leftrightarrow (\forall X2. (X2 \in k2\_cc0sp1 X0) \Rightarrow (k1\_seq\_1 X1 X2 = k4\_seq\_4 ( \\ & k5\_cc0sp1 X0 (k4\_cc0sp1 X0 X2))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0. (\neg v1\_xboole\_0 X0) \Rightarrow & (\forall X1. (X1 \in k2\_cc0sp1 X0) \Rightarrow \\ & (\forall X2. ((v1\_funct\_1 X2) \wedge ((v1\_funct\_2 X2 X0 k2\_numbers) \wedge \\ & (m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 k2\_numbers)))) \Rightarrow \\ & ((X2 = k4\_cc0sp1 X0 X1) \Leftrightarrow ((X2 = X1) \wedge (v1\_comseq\_2 (k2\_partfun1 X0 \\ & k2\_numbers X2 X0))))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0. (\neg v1\_xboole\_0 X0) \Rightarrow & (k2\_cc0sp1 X0 = ReplSep (toset (\lambda X1 : \\ & \iota. (v1\_funct\_1 X1) \wedge ((v1\_funct\_2 X1 X0 k2\_numbers) \wedge (m1\_subset\_1 \\ & X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 k2\_numbers)))))) (\lambda X1 : \iota. \\ & v1\_comseq\_2 (k2\_partfun1 X0 k2\_numbers X1 X0)) (\lambda X1 : \iota. X1)) \end{aligned} \quad (4)$$

**Theorem 1**

$$\begin{aligned} & \forall X0. (\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1. ((v1\_funct\_1 X1) \wedge \\ & (v1\_funct\_2 X1 X0 k2\_numbers) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 \\ & X0 k2\_numbers)))))) \Rightarrow ((v1\_comseq\_2 (k2\_partfun1 X0 k2\_numbers \\ & X1 X0)) \Rightarrow (k1\_seq\_1 (k6\_cc0sp1 X0) X1 = k4\_seq\_4 (k5\_cc0sp1 X0 X1))) \end{aligned}$$