

t82\_cohsp\_1 (TMPSXS-  
DmJ2rPno9TwVyBhH7N6zE1Lt9wCia)

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Let  $k3\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k14\_cohsp\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_tarski : \iota \Rightarrow \iota$  be given. Let  $np\_1 : \iota$  be given. Let  $np\_2 : \iota$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $r1\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k3\_card\_3 : \iota \Rightarrow \iota$  be given. Let  $k2\_card\_3 : \iota \Rightarrow \iota$  be given. Let  $k10\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (k2\_zfmisc\_1 (k3\_xboole\_0 X0 \\ X1) X2 = k3\_xboole\_0 (k2\_zfmisc\_1 X0 X2) (k2\_zfmisc\_1 X1 X2)) \wedge & (k2\_zfmisc\_1 \\ X2 (k3\_xboole\_0 X0 X1) = k3\_xboole\_0 (k2\_zfmisc\_1 X2 X0) (k2\_zfmisc\_1 \\ X2 X1)) & \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0. \forall X1. k14\_cohsp\_1 X0 X1 = k2\_xboole\_0 (k2\_zfmisc\_1 X0 (k1\_tarski np\_1)) (k2\_zfmisc\_1 X1 (k1\_tarski np\_2)) \tag{2}$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. k3\_xboole\_0 X0 (k2\_xboole\_0 X1 X2) = k2\_xboole\_0 (k3\_xboole\_0 X0 X1) (k3\_xboole\_0 X0 X2) \tag{3}$$

Assume the following.

$$\forall X0. k2\_xboole\_0 X0 k1\_xboole\_0 = X0 \tag{4}$$

Assume the following.

$$\forall X0. \forall X1. (X0 \neq X1) \Rightarrow (r1\_xboole\_0 (k1\_tarski X0) (k1\_tarski X1)) \tag{5}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. ((r1\_xboole\_0 X0 \\ X1) \vee (r1\_xboole\_0 X2 X3)) \Rightarrow & (r1\_xboole\_0 (k2\_zfmisc\_1 X0 X2) (k2\_zfmisc\_1 \\ X1 X3)) & \end{aligned} \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.(r1\_xboole\_0 X0 X1)\Leftrightarrow(k3\_xboole\_0 X0 X1 = k1\_xboole\_0) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.k14\_cohsp\_1 X0 X1 = k3\_card\_3 (k2\_card\_3 (k10\_finseq\_1 X0 X1)) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.k3\_xboole\_0 X0 X1 = k3\_xboole\_0 X1 X0 \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.k2\_xboole\_0 X0 X1 = k2\_xboole\_0 X1 X0 \quad (10)$$

**Theorem 1**

$$\forall X0.\forall X1.\forall X2.\forall X3.k3\_xboole\_0 (k14\_cohsp\_1 X0 X1) (k14\_cohsp\_1 X2 X3) = k14\_cohsp\_1 (k3\_xboole\_0 X0 X2) (k3\_xboole\_0 X1 X3)$$