

t39\_mcart\_1  
(TMX13cMbrqSRYT2h2foAarriAtkkAHM8tZc)

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Let  $k3\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_tarski : \iota \Rightarrow \iota$  be given. Let  $k2\_enumset1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_xtuple\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  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  $k4\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

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

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. k2\_enumset1 X0 X1 \\ & X2 X3 = k2\_enumset1 X0 X1 X3 X2 \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. k3\_zfmisc\_1 (k2\_tarski \\ & X0 X1) (k1\_tarski X2) (k1\_tarski X3) = k2\_tarski (k3\_xtuple\_0 X0 \\ & X2 X3) (k3\_xtuple\_0 X1 X2 X3) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (k2\_zfmisc\_1 (k2\_tarski X0 X1) \\ & X2 = k2\_xboole\_0 (k2\_zfmisc\_1 (k1\_tarski X0) X2) (k2\_zfmisc\_1 ( \\ & k1\_tarski X1) X2)) \wedge (k2\_zfmisc\_1 X2 (k2\_tarski X0 X1) = k2\_xboole\_0 \\ & (k2\_zfmisc\_1 X2 (k1\_tarski X0)) (k2\_zfmisc\_1 X2 (k1\_tarski X1))) \end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. k2\_enumset1 X0 X1 \\ & X2 X3 = k2\_xboole\_0 (k2\_tarski X0 X1) (k2\_tarski X2 X3) \end{aligned} \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.k3\_xtuple\_0 X0 X1 X2 = k4\_tarski (k4\_tarski X0 X1) X2 \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.k3\_zfmisc\_1 X0 X1 X2 = k2\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1) X2 \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.k2\_tarski X0 X1 = k2\_tarski X1 X0 \quad (8)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.\forall X4.k3\_zfmisc\_1 \\ & (k2\_tarski X0 X1) (k2\_tarski X2 X3) (k1\_tarski X4) = k2\_enumset1 \\ & (k3\_xtuple\_0 X0 X2 X4) (k3\_xtuple\_0 X1 X2 X4) (k3\_xtuple\_0 X0 X3 X4) \\ & (k3\_xtuple\_0 X1 X3 X4) \end{aligned}$$