

t119\_zfmisc\_1

(TMSvXMix992Y8SqZvZzNfhyhuA3FYpQMR3)

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Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  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.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. k2\_xboole\_0 (k2\_xboole\_0 X0 \\ & X1) X2 = k2\_xboole\_0 X0 (k2\_xboole\_0 X1 X2) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. ((r1\_tarski X0 X1) \wedge \\ & (r1\_tarski X2 X3)) \Rightarrow (r1\_tarski (k2\_xboole\_0 X0 X2) (k2\_xboole\_0 \\ & X1 X3)) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (r1\_tarski X0 X1) \Rightarrow (r1\_tarski \\ & X0 (k2\_xboole\_0 X2 X1)) \end{aligned} \tag{4}$$

**Theorem 1**

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. \forall X4. \forall X5. \\ & ((r1\_tarski X0 (k2\_zfmisc\_1 X2 X3)) \wedge (r1\_tarski X1 (k2\_zfmisc\_1 \\ & X4 X5))) \Rightarrow (r1\_tarski (k2\_xboole\_0 X0 X1) (k2\_zfmisc\_1 (k2\_xboole\_0 \\ & X2 X4) (k2\_xboole\_0 X3 X5))) \end{aligned}$$