

# t113\_zfmisc\_1 (TMYksRqcTBmZ- zKoi2QZU2aJzRFshCwdTmv)

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Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.k2\_zfmisc\_1 (k3\_xboole\_0 X0 X1) (k3\_xboole\_0 X2 X3) = k3\_xboole\_0 (k2\_zfmisc\_1 X0 X2) (k2\_zfmisc\_1 X1 X3) \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(X2 = k3\_xboole\_0 X0 X1) \Leftrightarrow (\forall X3.(X3 \in X2) \Leftrightarrow ((X3 \in X0) \wedge (X3 \in X1))) \quad (2)$$

**Theorem 1**

$$\forall X0.\forall X1.\forall X2.\forall X3.\forall X4.((X0 \in k2\_zfmisc\_1 X1 X2) \wedge (X0 \in k2\_zfmisc\_1 X3 X4)) \Rightarrow (X0 \in k2\_zfmisc\_1 (k3\_xboole\_0 X1 X3) (k3\_xboole\_0 X2 X4))$$