

l1\_heyting3  
(TMSX64f41xHNXupR4j8U51vv9FTPQyZMZA<sub>s</sub>)

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Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_tarski : \iota \Rightarrow \iota$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $k4\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.(k4\_tarski\ X0\ X1 \in k2\_zfmisc\_1\ X2\ (k1\_tarski\ X3)) \Leftrightarrow ((X0 \in X2) \wedge (X1 = X3)) \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.v1\_relat\_1\ (k2\_zfmisc\_1\ X0\ X1) \quad (2)$$

Assume the following.

$$\forall X0.(v1\_funct\_1\ X0) \Leftrightarrow (\forall X1.\forall X2.\forall X3. ((k4\_tarski\ X1\ X2 \in X0) \wedge (k4\_tarski\ X1\ X3 \in X0)) \Rightarrow (X2 = X3)) \quad (3)$$

**Theorem 1**

$$\forall X0.\forall X1.(v1\_relat\_1\ (k2\_zfmisc\_1\ X0\ (k1\_tarski\ X1))) \wedge (v1\_funct\_1\ (k2\_zfmisc\_1\ X0\ (k1\_tarski\ X1)))$$