

t10\_interval  
(TMYo7TYNLRUvPUnZ6iTYJUzFY7iLR5iCiiX)

October 27, 2020

Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $m1\_interval : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_tarski : \iota \Rightarrow \iota$  be given. Let  $k1\_interval : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0. \forall X1. (m1\_subset\_1 X1 (k1\_zfmisc\_1 X0)) \Rightarrow (k1\_interval X0 X1 X1 = k1\_tarski X1) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((m1\_subset\_1 X1 (k1\_zfmisc\_1 X0)) \wedge (m1\_subset\_1 X2 (k1\_zfmisc\_1 X0))) \Rightarrow (m1\_subset\_1 (k1\_interval X0 X1 X2) (k1\_zfmisc\_1 (k1\_zfmisc\_1 X0))) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k1\_zfmisc\_1 X0))) \Rightarrow ((m1\_interval X1 X0) \Leftrightarrow (\exists X2. (m1\_subset\_1 X2 (k1\_zfmisc\_1 X0)) \wedge (\exists X3. (m1\_subset\_1 X3 (k1\_zfmisc\_1 X0)) \wedge (X1 = k1\_interval X0 X2 X3)))) \quad (3)$$

**Theorem 1**

$$\forall X0. (\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1. (m1\_subset\_1 X1 (k1\_zfmisc\_1 X0)) \Rightarrow (m1\_interval (k1\_tarski X1) X0))$$